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WESTERN AMERICANA

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TO THE ROCKIES AND BEYOND,

OR A SUMMER ON THE

UNION PACIFIC RAILWAY AND BRANCHES.

SAUNTERINGS IN THE POPULAR HEALTH, PLEASURE, AND
HUNTING RESORTS OF

NEBRASKA, DAKOTA, WYOMING, COLORADO, NEW MEXICO,
UTAH, MONTANA AND IDAHO,

WITH DESCRIPTIONS OF THE

BLACK HILLS, BIG HORN AND SAN JUAN REGIONS, AND SPECIAL
ARTICLES ON STOCK RAISING, FARMING, MINING,
LUMBERING AND KINDRED INDUSTRIES OF
THE TRANS-MISSOURI REGION.

BY ROBERT E. STRAHORN ("ALTER EGO"),
OF THE WESTERN PRESS.

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INTRODUCTION.

It is the desire of the writer to pleasantly introduce all classes to the great central region lying beyond the Missouri. The overflowing thousands of the crowded states and older worlds must strike anchor in our broad West, and it is for these armies of home-seekers, no less than for the constantly increasing mass of tourists in quest of health and pleasure, that this volume is written. The solid interests and rapid development of the Trans-Missouri region, the delightful experiences of mountaineering and the glories of far west climate and scenery are portrayed in a manner which, it is hoped, will be found at once instructive and entertaining. The writer can do no better than wish all as much pleasure in their journeyings toward sunset as he himself enjoyed during his "Summer on the Union Pacific Railway and Branches."

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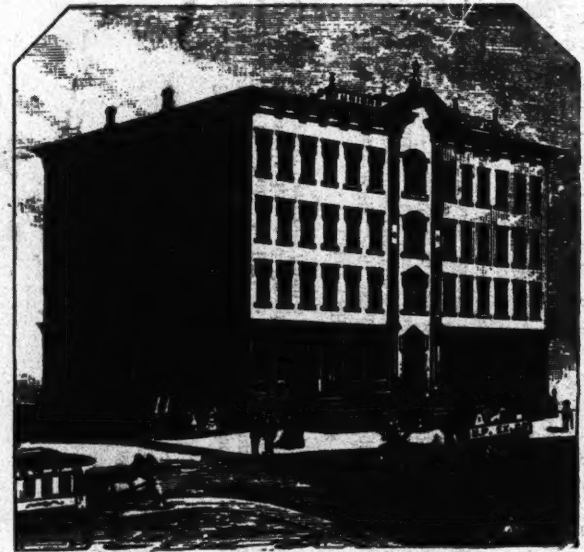
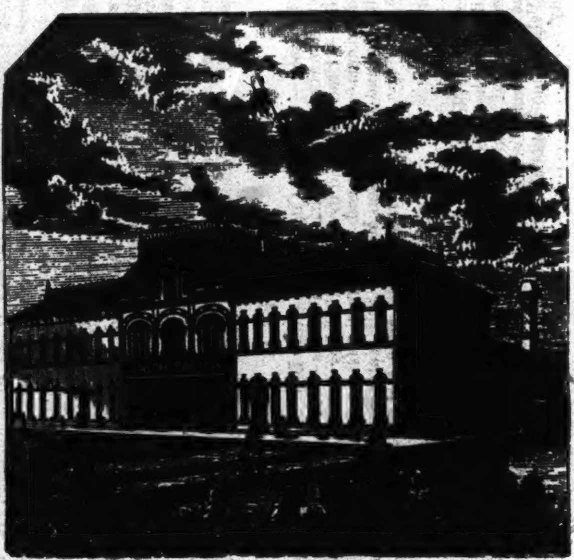


HEADQUARTERS UNION PACIFIC RAILWAY, OMAHA.



UNION PACIFIC DEPOT, COUNCIL BLUFFS.

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TO THE ROCKIES AND BEYOND.

CHAPTER I.

WEST FROM THE MISSOURI—THE GREAT PLATTE VALLEY AND THE NATION'S PASTURE LANDS.

"*To the Rockies and beyond!*" was our final exclamation. It didn't strike right and left like a bolt in the clouds, because we had read and talked the matter over carefully in our quiet prairie home for months. We had taken pains to learn that this was a royal country—this western half of our continent—full of wonders and wealth, and we were just at that stage so intensely chronic in America which impelled us to go *somewhere*. We—my friends and I—had no money to fritter away in aimless travel. "Going west" meant a world of things to us besides our own gratification, because upon our experience depended the founding of homes and the investment of others' dollars.

To sum up, we determined that this should be the great instructive and enjoyable era of our busy lives. We wanted to see the broadest and richest areas of western farmlands, the vast winter and summer grazing regions, the world's finest hunting grounds. We would dive into the mysteries of the deepest gold and silver mines, explore the most wonderful coal measures and "rough it" in the wildest forests. We would never think of "going west" without passing over the mightiest mountains, through the grandest cañons, and along the largest lakes and rivers. Neither could we deny ourselves the supreme pleasures of breathing the most invigorating atmosphere, plunging into the famous hot springs, or imbibing the delicious and health-giving mineral waters. Of course the largest and most beautiful cities, as well as the liveliest mining camps must be in our pathway, for there is where the buoyant, sinewy and thriving west beams out in greatest business venture and crystallizes into finest social culture.

All this in one short summer!

Our demands would have been less extravagant a few years ago, but in this era of railways we stood sweltering at our rendezvous on the heated pavements of Chicago, took a forty-eight hour stretch of imagination and were whiffing ice-tempered breezes at the base of the Rocky Mountains! Three of the finest railways in America were ready at Chicago to take us "neck and neck" to the Missouri river at Omaha. Never hesitate about deciding *which* you will take, reader; "go it blind" on either and you will find railroad travel over the broad prairie states a luxury.

We made Omaha our final starting point on the great sea of plain because, in looking over our programme, we found there was but *one* route which covered all the ground, and that we soon learned to call "The Highway of Continents"—the Union Pacific Railway. While whirling over the plains and through the mountains in its luxuriant palace cars we could watch the tide of commerce of the world. The wealth of European and Asiatic countries, of Pacific's distant isles and of our own grand America, could be seen concentrated and pouring over these iron lines. Here and nowhere else could we follow "That western trail of immigration which bursts into states and empires as it moves."

At Omaha was found enough to engross any visitor's attention and interest for a week, but a few hours had to suffice us. It is a fitting entry to the boundless west—a splendid western city, where the tourist from the east gets his first refreshing glimpses of the vim and "snap," born of lively growth and competition, which he will encounter everywhere toward sunset. There are dozens of noble monuments to this invincible enterprise visible, to say nothing of the thousands of smaller and less noticeable ones which we know are contributing their share to make Omaha what rivals already yield her to be—the metropolis of the northwestern states and territories. Crossing the Missouri on one of the finest iron bridges in the world, we noticed, down to the right, the great smelting works, which turn out more of the precious metals than all other similar works in the United States combined, save one. Their product was something like $5,000,000 in 1877, and the beautiful bars of silver and gold there on exhibition add keen zest to promises of underground explorations among the glittering mineral veins. A little farther up the river bank, covering thirty acres of ground, are the extensive Union Pacific Railway shops, which give employment to nearly a regiment of lusty mechanics, and turn out anything in the line of railroad equipment, from the smallest bolt to the handsomest passenger car. Just at the end of the bridge, on the left, is a large and lively distilling establishment, which, for the privilege of turning out immense quantities of the "old reliable" beverage, pays a tax of over half a million dollars a year. Crowning the wooded and picturesque bluffs in plain sight ahead and commanding wide view of river and valley, are the splendid school houses—one of these costing $250,000—and many of the most elegant residences. Then, under the shelter of the bluffs, but still high above the river, are the long rows of solid business blocks, the fine public buildings and the dozen or more church spires. The post-office and custom-house combined, the Grand Central Hotel, Union Pacific headquarters and many other buildings are noticeable for their size and beauty of architecture. The Union Pacific building is pronounced one of the finest railway headquarter offices in the world, and the Grand Central Hotel—well, it is the largest and most elegant between Chicago and San Francisco, and almost won us to a longer sojourn by its faultless appointments.

Nine railways practically terminate at Omaha, rendering her the center of a railway system which could hardly be excelled, and bringing the trade and travel of wide and productive scopes of country, north, south, east and west. Then there is the cheap steam transportation afforded by the Missouri river and her tributaries, by which over three thousand miles of water line along Nebraska, Iowa, Dakota and Montana are made to contribute to the general prosperity. The additional United States branch mint, which is to be located in the near future, will undoubtedly go to Omaha if unexcelled natural auxiliaries to its successful operation are the requisites. Many unanswerable arguments are submitted upon this question, but we can only notice one in addition to the above facts showing how wonderfully the city holds the key to the wealth of half a dozen states and territories. This item is simply that Omaha has always been the gateway through which two-thirds of the entire mineral yield of the United States has passed. Base bullion and ore of the value of $10,000,000 was shipped hither from the western mines as freight over the Union Pacific Railway in 1877, while gold and silver bullion and coin to the amount of over $50,000,000 reached this point by Union Pacific Express during the same period. It therefore appears that Omaha handled $60,000,000 of the total amount of $98,000,000 of gold and silver produced in the United States in 1877. We could see nothing accidental about this. We had entered the great central belt of wealth, industry and population; the greatest of all railways had appropriated the field, and by making this its outlet had laid the foundation for enterprises which, even in this fast age, are scarcely foreshadowed.

To indicate the scope of business at Omaha we may add that 2,000,000 bushels of grain and 95,500 head of cattle were received during 1877. Over $38,000,000 of exchange were sold by the banks during the same period, and $800,000 were invested in improvements. For fear some reader may think us a little extravagant in our statement that we could watch the commerce of nations pouring through this outlet over the Union Pacific Railway, we will mention the simple items of silk and tea shipments from China and Japan. We could see *train loads* of tea arrive here from the "Flowery Kingdom," *via* the Pacific Ocean and San Francisco, and importations of silk by the car load. Nearly 1,000 cars of tea were received during 1877, direct from celestial "first hands."

Up the Platte Valley.—Eager for the start and yet unsatisfied with such a mere glimpse of Omaha, we took quarters in the luxuriant palace cars of the Union Pacific and sped westward. The train was long, well filled, and rolled over the bands of steel with the power and seeming pride of a very monarch of pioneers. Getting acquainted with fellow passengers we found here an anxious home-seeker, tired of the worn-out soils, enervating atmosphere and "barren opportunities" of his crowded native state, and determined on planting himself anew in the broader, more attractive fields of the bright young west; there a pale and nervous health-seeker, full of doubt and hope combined, who evidently *needed* Colorado sunshine and the mountain air; yonder a Wyoming cattle dealer, satisfied with the world and himself, because he had made his pile on the steer of the period; and then here an ex-surveyor-general of Nebraska, whose judgment on western resources is said to be next to faultless and who was taking large quartz mills into the Black Hills, where he declares there are millions of wealth in sight. We also had on board a representative of the government on his way to China—for, be it remembered, this was the "Highway of Nations"; Californians returning to their beautiful "Golden Gate"; pleasure-seekers going to lead aimless lives at the fashionable Colorado watering places, or, mayhap, intending to do some real genuine "roughing" among the mountains and in the forests, and, among the dozens of others, army officers on their way to the frontier to do their thankless duty of making the original owners of the country believe they don't own anything.

Nebraska and the Platte Valley have been wonderfully "written up" since the advent of railroads, and we make no extensive notes where the ground has already been so thoroughly reviewed. Passing along, however, we obtained some facts concerning resources and recent progress. Eleven years ago these beautiful valley landscapes—in which thousands of productive farms, fine farm-houses, blossoming orchards and thriving cities are now such grateful features—were smooth meadows and prairie uplands, with only here and there the stage station in sight. The change has been so rapid that the eleven years seemed stretched to fifty. In the whole of Nebraska there were only 50,000 people. The grand stimulus—the Union Pacific Railway—together with wonderful fertility of soil and other matchless resources, have swelled this little division into an army of 300,000 strong. In 1870 the population was 123,000; in 1873, 250,000, and from this up to the splendid body of producers of to-day. From the broad acres, which were scarcely "scratched" a dozen years ago, and where the Indian and buffalo were proud possessors, 12,000,000 bushels of wheat were produced in 1877, together with hundreds of tons of beef. It is estimated that this one great valley alone is capable of sustaining 3,000,000 of people. At this late day it is hardly necessary to tell of the fine crops of wheat, oats, corn, rye, barley and vegetables of every nature which are produced, or of the luscious fruits. Of the latter, one hundred different varieties from one county were on exhibition at Omaha for several weeks, and it is a matter of common knowledge that the American Pomological Society has awarded Nebraska the first premium over all states in the land for the largest and best display of fruits. Wheat yields as high as thirty bushels per acre and averages about twenty. No stumps or stones interfere with easy cultivation, grass grows luxuriantly enough for hay everywhere, if not molested, and the mowing machine will run for miles without encountering an obstruction. We could easily see that home-making here would be child's play compared with the same task in the backwoods or among the rocky uplands of the older states. Hundreds of thousands will yet find choice homesteads on the lands of the Union Pacific Railway, which border the track, and on tracts still held by the government. Lands can be obtained at prices ranging from $2 to $10 per acre, on long time, if desired, so that the frugal and industrious farmer, with a few hundred dollars to make needed improvements, can easily pay for his home from the products of the rich valley soil. Prospective settlers are assisted by the company in the way of cheap exploring tickets and colonists get the advantage of reduced freight rates. Very valuable information, covering this whole ground, is issued gratuitously to all by the Land Commissioner of the Union Pacific Railway, Omaha.

Fine Hunting.—While speeding along the Platte, the stream which kept us pleasant company for many miles, we were hourly tempted to forsake our iron trail by the near sight of different kinds of game. On the broad bosom of the river legions of wild geese and other water fowl find their coveted abiding place, and the hunter would be worse than novice who could not bag his dozens within sight of the track almost any day in spring or fall. The Elk Horn, Loup Fork, Wood river, Shell creek and other tributaries of the Platte in eastern and central Nebraska are little behind the parent stream in these strong attractions for the sportsman. Then, on the alternating grassy prairies and well-tilled fields, we frightened up large flocks of prairie chickens, and as we crossed the beautiful Elkhorn river, twenty-eight miles from Omaha, were told that the wooded banks there are the resorts for hundreds of coveys of quail. The deer still ventures within a dozen miles of Omaha, among the timbered bluffs bordering the river, but to enjoy first-class shooting for such noble game we strike out among the timbered ravines along the Platte and Loup, all the way from fifty to three hundred miles westward. Buffalo, elk and antelope can easily be reached from many different points in the Platte valley. We kindled smouldering embers of "buck fever" in the hearts of numerous passengers and proved our faulty aim by often firing at bands of the latter from the platform of our Pullman.

For geese or chickens we learned that we should get off at North Bend, 61 miles; Schuyler, 75 miles; Columbus, 91 miles; or Clark's, 120 miles from Omaha; not because we couldn't find them in great plenty at almost every station, but because hotel accommodations are better at those places. Jackson, 99 miles; Kearney Junction, 195 miles; and North Platte, 291 miles from Omaha, are all favorite points of rendezvous for hunters of large game. Game is shipped by the wagon load from a number of the above places to Omaha and farther east. By camping out at Cozad, 245 miles from Omaha, our friends have found sport which will furnish a topic for winter-night talk for years to come. Buffalo, elk, antelope, deer, wild turkeys, geese, ducks and other wild fowl are here found in great abundance. Southward from 50 to 75 miles are the great buffalo ranges of the Republican Valley, where some of the most noted American and European Nimrods are distinguishing themselves every season. Board at these points ranges in price from $1.50 to $3 per day. Where camping out is necessary, team and guide, $4 to $6 per day.

THE GREAT WINTER GRAZING REGION.

At Grand Island, one hundred and fifty-four miles west of Omaha, we fairly entered the great grazing belt of the continent—that which affords sure sustenance for stock and a fair degree of safety without shelter the year round. We soon saw large herds of sleek cattle feeding upon this natural pasturage on every hand, and often mingling with bands of antelope and other game. From this west to the Pacific ocean, north into the British Possessions and to the southernmost limit of the continent, cattle graze and fatten summer and winter, needing no more attention to assure their growth and safety than the buffalo. Nearly all readers must understand that the grasses west of here cure where they grow, retaining all their wonderfully nutritious elements, and that different herbs unknown in the east also afford a perfect winter diet. Further, that the snows are light and dry, ever shifting before the prairie winds, and that sheltered and wooded valleys are conveniently interspersed, affording all the protection that cattle have ever seemed to need. It is readily seen, therefore, that in all this vast territory must be thousands upon thousands of opportunities for men to produce beef, after the nucleus for a herd is purchased, at the simple outlay of *herding and branding*. It is demonstrated by hundreds of reliable stockmen that the loss from all causes will not exceed two per cent of the entire herd per annum.

How the Business is Carried on.—This industry is one in which we have always felt the liveliest interest and one well worthy of elaboration here. A quite popular and profitable mode of handling cattle is that in which breeding is given little attention and buying and selling steers season after season takes the preference.* Two and three-year-old steers are purchased in Texas in the early summer at say $12 and $16 per head delivered on the line of the Union Pacific. With them are often purchased a few heifers and cows, which, upon being located on the range, are kept as a nucleus to assist in holding the strange animals bought each year within the limits of the range. A desirable ranch site is chosen, and as a rule the improvements made are much less expensive than those on regular breeding ranches. The cattle are kept upon these rich cured grasses during the winter, and during the summer following (one year from the date of their entry) the best three and four-year-olds are sold to local dealers or are consigned to eastern commission men. These well-conditioned Texans sell at an average of $28 per head at any of the stations, leaving a profit of about $10 per head. The few not fit for sale are left with the nucleus already referred to and held over for another season. The profits are at once reinvested in the manner first described, and the buying, pasturing and selling thus continued year after year. For parties who do not desire to continue in the industry more than a few years, this plan presents the strong inducement of not requiring so much preparation and expense in starting; while the rather "gypsy" fashion of conducting the enterprise admits of the settlement and termination of it without inconvenience at almost any time.

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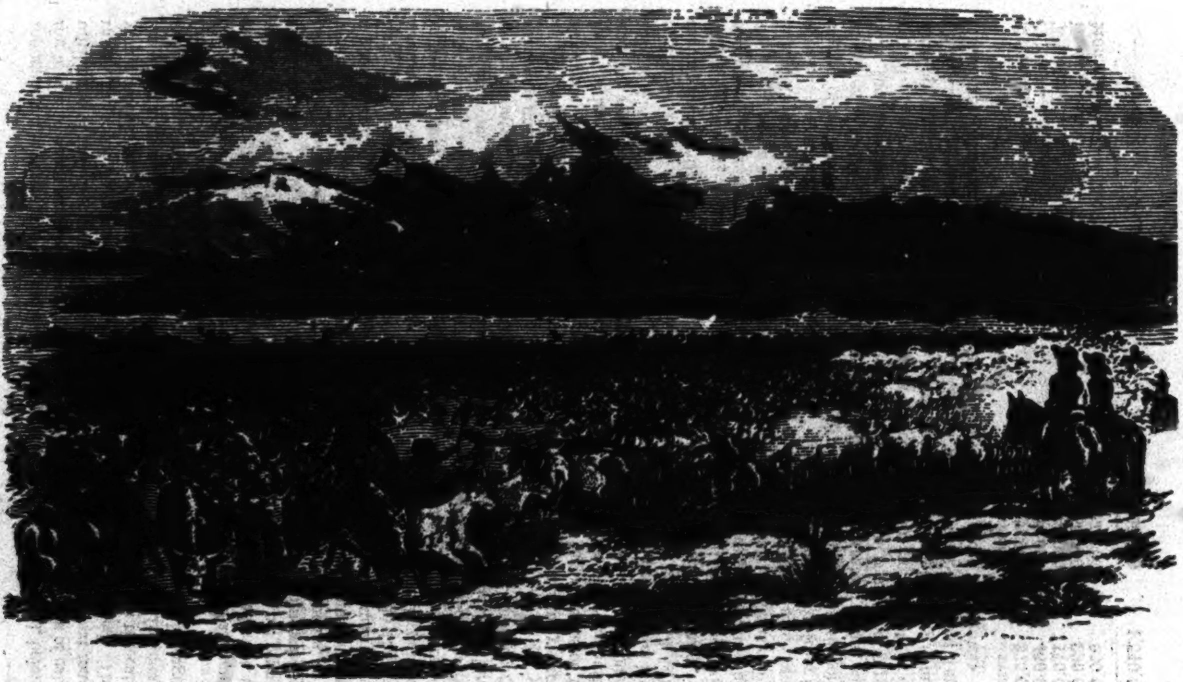
* Facts and figures here given and in relation to Wyoming are partially adapted from a previous work of the writer, "*Wyoming, Black Hills and Big Horn Regions*," 250 pages, Robt. E. Strahorn, publisher, Cheyenne, Wyoming.

However, the breeding of cattle on this vast free range is as sure and probably as short a road to wealth as is offered by any legitimate enterprise under the sun. Texas yearlings, either sex, can be bought at almost any railroad point here at $7.50 per head; two-year-olds, $12; cows, $18. A good ranch site, with necessary buildings and corrals, located within two days' drive of the railroad, can be secured for $1,500. First-class herders (and others are dear at any price) can be readily obtained at an average of $32.50 per month and board. Very close calculations, made by several competent informers, make the total expenses of keeping cattle each year, after the necessary permanent ranch improvements have been made, as follows: In herds of 1,000, per head, $1.75; in herds of 5,000, $1.40; in herds of 10,000, $1. It is also reliably stated that such stock growers as J. W. Iliff, who graze over 25,000 head, figure their expenses down to from fifty to sixty cents per head per annum. Think of the average cattle man raising a steer and putting him on the market, a three-year-old, at a total expense of *four dollars and fifty cents.* Ten thousand dollars is considered a fair sum to start with in breeding cattle. We had access to the accounts of a thoroughly reliable breeder whose books exhibited an investment of $15,000, covering a period of only five years. He purchased 1,000 Texas cows and the necessary number of short-horn sires. Sales of steers were only made the last two years, and the amounts realized were not reinvested. The closing of the account revealed a profit of $68,000 for the five years' operations. This plan can only be appreciated and its grand possibilities realized by its being followed from five to ten years, and by the introduction of better blood into the herd.

Early in the summer of each year the great "round-ups" occur. All herders, and frequently owners of stock, gather together in certain localities, and, with the most experienced and skillful stockmen for leaders, inaugurate a short season of the herdsmen's wildest revelry. Mounted upon their best ponies, the herders swiftly scatter out across the range, gathering in every animal, and finally concentrating the property of perhaps a dozen prominent stock growers in one immense, excited herd. Passing near the ranches of respective owners, the animals are halted in a convenient location, and part of the cow-boys hold



THE CATTLE "ROUND UP."

the mass while others ride through it, single out the "brand," or animal, belonging to the adjacent range or ranch, and separate it from the main body of cattle until none of that description are to be found. Moving along to the next man's range, the scene is repeated, and so continued until the cattle are divided. Then young stock is branded, marketable stock sometimes disposed of, and the cattle are again allowed their freedom. Five or ten thousand head are thus frequently gathered together, and during the round-up season men "camp out," wagons following the herd with provisions, blankets, etc.

Wonderful Profits.—A steady profit of twenty-five per cent per annum is really a common result. Forty and fifty per cent have been realized, but the writer who lays down such figures as an average is very liable to get his reputation involved. It is not uncommon for experienced stockmen, who know how to utilize every advantage, and to guard against nearly all discouragements, to do business for a time on capital borrowed at two per cent per month, and to make a good margin on the investment. The writer has in mind a gentleman whose large herds roam in southern Wyoming, who for five years has made the very handsome profit of forty per cent per annum. He has been especially judicious in his purchases and sales, exercised great care and judgment in the selection of a range, and in his system of ranch improvements, and has been so fortunate as to secure some of the best men on the plains to carry out the practical workings of his business. Constant supervision and study upon the part of the *owner* of stock is a grand point.

Room for Thousands.—The home and foreign market constantly grows stronger. The ratio of increase in population in America is far in excess of the increase in our supply of beef and mutton, and the exports of beef, mutton and live stock to Europe have increased in value from less than $2,000,000 in 1876 to $14,000,000 in 1877. That this western country can produce the beef, mutton and wool for all America, as well as for millions in the old world, is becoming an admitted fact, visionary as it would have seemed ten years ago. In this connection is a point generally overlooked. We should remember what myriads of graminivorous animals have fed upon these native grasses, and how slowly our herds are increasing in proportion to their decrease. Millions of buffalo, elk, antelope and deer have for centuries fattened on these same broad acres, and now, before the "march of empire," are steadily vanishing from the carpets of nutritious grasses. It is estimated by the most competent authority that over 15,000,000 buffalo alone have been killed on the western plains since 1870, the slaughter having become so fearful that legislation is invoked to prevent it. Even this vast herd of buffalo, which could make no perceptible impression on the boundless pasture lands, has not yet been half replaced by domestic flocks and herds. The numbers of cattle and sheep in the States and Territories directly tributary to the Union Pacific Railway are placed as follows:

	SHEEP.	CATTLE.
Nebraska	125,000	375,000
Colorado	800,000	450,000
Wyoming	100,000	175,000
Utah	350,000	290,000
Montana	150,000	250,000
Totals	1,525,000	1,540,000

While these figures show the progress made under great discouragements in less than twenty years, and are very gratifying, they also open our eyes to the fact that the industry has but really commenced, that the field cannot be thoroughly utilised for many years, and that until it *is* utilised golden opportunities are everywhere open for the investment of small or large capital.

Julesburg and Cheyenne are the largest cattle shipping points, while Ogallala, Pine Bluffs, Sidney and North Platte, in Nebraska, are all noted for this line of business. There were about 1,000 car loads, or 20,000 head, shipped during 1877 from each of the two points first named. The business has developed wonderfully in the past five years, shipments showing a steady and rapid increase. As already stated, the total cattle shipments for the year eastward, over the Union Pacific, were about 95,000 head. Of this number one dealer, J. W. Iliff, has marketed 15,000, receiving at an average $25 per head. Mr. Iliff is justly called the western "cattle king," for he owns over 50,000 head, and his range is 150 miles long by half as many wide. There are many others who own from 5,000 to 20,000 head of cattle, not one of which ever feeds a pound of grain or hay except to working stock.

Verily, visions of perennial pastures, marketable steers and plethoric purses have followed us to the end of our journey—yea, until we are prone to sell out the unproductive old possessions "back east," go to the western prairies and produce that for which the world pays its surest and greatest tribute—bread and beef. However, if we do all this, before we ever bridle the frisky Texas steer we will serve a twelvemonths' apprenticeship with some older hand. This business, like all others, requires careful study and will not run itself.

Sidney— 414 miles from Omaha, and near the western edge of Nebraska, has attained considerable importance as a point of outfitting and departure for the Black Hills gold fields. It is a lively, thriving place of about 1,000 inhabitants, possessing two of the best hotels in the state outside of Omaha, large outfitting and forwarding houses, and other necessary auxilaries to the Black Hills trade. One firm of freighters shipped two and a half million pounds of goods to the Hills in 1877, while smaller firms swelled the total to about 4,000,000 pounds. Deadwood is said to be 267 miles distant. The roads are first-class, lined with ranches and stopping places, and passing one military post, Camp Robinson, en route. Fare to Deadwood, $30. Fine Concord coaches, carrying mails and express, leave daily, and land passengers at Deadwood in about fifty hours. Good antelope hunting can always be had within a few miles of Sidney. Among other aspirations of the town is its confidence in being made the southern terminus of the proposed Union Pacific and Black Hills Railway. Our trip to the northern Eldorado was by way of Cheyenne, and we necessarily make extended observations upon the region in pages following. Board in Sidney $3 and $4 per day in the two leading hotels.

CHAPTER II.

WYOMING AND THE BLACK HILLS—ROUTES TO THE NORTHERN ELDORADO—GOLD YIELD, ETC.

Soon after leaving Sidney the railroad enters the young and thriving territory of Wyoming. It covers an area of nearly 100,000 square miles, and, as we learn after thousands of miles of horseback travel within its limits, possesses a variety of resources rarely centered within the boundaries of one commonwealth. Forest and plain, mountain and valley, water-course and upland, unite to furnish the most accessible field for the speedy creation of a large and prosperous state. The grazing area proper aggregates 55,000 square miles, while much of the mountain surface, omitted in this estimate, is thickly carpeted during summer and fall with the most succulent and nutritious grasses. That portion susceptible of cultivation comprises some 15,000 square miles of bottom and uplands. The timber area is very extensive, covering nearly one third of the territory, and in coal Wyoming is the richest of all states or territories. In the 40,000 square miles of mountain area are vast deposits of gold and silver bearing ores, iron, copper, etc.

Eastern readers may not readily realize the extent of all this latent wealth in an average western commonwealth, and we will indulge in a few comparisons. Wyoming's grazing area is greater than the entire area of Kentucky, a state which in 1870, owned nearly 2,000,000 head of sheep and cattle, besides over 1,000,000 head of other live stock. The agricultural area here of virgin and fertile soil is greater than that of the states of Massachusetts and Connecticut combined, which, on their artificially fertilized soil, produce an average of 5,000,000 bushels of grain annually. Wyoming's forests cover more territory than those of the great lumbering state of Michigan, whose product in this line reaches a value of $40,000,000 per annum. And her surface underlaid with strata after strata of coal exceeds that of the coal lands of Pennsylvania, whose yield in coal reaches $50,000,000 or more annually. The population is estimated at only 28,000, while the valuation is placed at about $11,000,000. There are three railways, aggregating a length of over 500 miles, and six telegraph lines, aggregating a length of 1,500 miles. Development, in every field, has always been retarded by depredations of the savages. These have until recently occupied the finest section of the territory; but now, through the well directed efforts of General Crook and his brother officers and men, the citizens have better prospects for permanent peace.

Wyoming is the huntsman's and angler's paradise. On her plains the buffalo and antelope find an agreeable, all-the-year home; in her mountains the elk, deer mountain sheep, bear and mountain lion abound; and in her thousand crystal streams and lakes the gamiest and most delicate of all fish, the mountain trout, are always ready for the bait. Sage-hens, grouse and rabbits are found almost everywhere, while geese, ducks and wild fowl are native to nearly all the lakes and watercourses. The settler has no trouble in providing himself with the best wild meats the year round, and indeed often makes a good living by hunting game for local markets. From the moment the tourist enters the territory until he departs, his bill of fare teems with these riches of forest, plain and river. Fur-bearing animals of almost every description are also taken by the hundreds of trappers who inhabit the frontier, and the number of beavers and wolves especially, which are annually trapped for their skins, is enormous. A day's ride from almost any station will take the Nimrod into hunting grounds of the best class.

The territory affords a rich field for the scientist. The most wonderful petrifactions and fossils which are among public and private collections in the East have been found here. Such natural curiosities as the garnet, topaz, jasper, agate, chalcedony, and rare crystallizations, are found in different sections. Mineral springs, fine scenery and sunny skies are not wanting to attract the health and pleasure seeker. The nation's own pleasure ground, the Yellowstone National Park, occupies the northwestern corner of the territory, and is in itself an attraction which must in the near future entice many hither. Of its wonders we shall say more in future pages.

Cheyenne.—516 miles west of Omaha, at an altitude of 6,041 feet above the sea, is Wyoming's bustling metropolis and capital city, Cheyenne. So far Cheyenne is much in the lead of all rivals as an outlet and supply point for the vast northwest, and no territorial city hereabouts can approach her for real, downright enterprise, sagacious business management, or spirit of permanency. Three railways center here — Union Pacific, Colorado Central and Denver Pacific — and the energetic business men are doing their utmost to secure the coveted northern road leading either to the Black Hills or Montana, or, by double termini, controlling the trade of both. Already the heavy wholesale houses here are securing much of the northern and western trade which originally went to the cities of the East, and with their constantly enlarging facilities and liberal spirit this important index of prosperity still furnishes the brightest possible outlook.

A feature always refreshing and pleasing to the new comer here is the wonderful thrift, bustle, and unfaltering courage which is everywhere apparent. From the peanut vender on the street corner to the wholesale merchant we traced this same nerve, which in the west is said to "laugh at impossibilities." Of course we caught the infection, and were soon ready to embark in any number of prodigious enterprises. Then here we received our first really unmistakable blast of the mining atmosphere, which comes down strong and fresh from the Black Hills. Bronzed and enthusiastic miners are constantly arriving with glittering specimens from their "finds," while new seekers for treasure are bound northward on every coach, or are seen leaving by every other conceivable means of transportation. The bank windows and counters are always lined with tempting displays of yellow nuggets, huge retorts of gold from the Black Hills stamp mills, or fine dust from the rich gulches of that famous northland. Great trains of "prairie schooners" crowd around the forwarding houses, or are seen pulling out with stamp mills, other mining machinery, and miscellaneous supplies. Numerous Cheyenne citizens own stock in the mines, and quite a number have obtained property which pays very handsome dividends.

Cheyenne has a population of 4,500, is becoming quite solidly built, and exhibits as fine residences, public buildings and improvements generally, as any city on the Union Pacific, west of Omaha. The taxable wealth is about $3,500,000, and improvements for the past two years have cost $700,000. Indicating the extent of business are the statements that over 80,000,000 pounds of freight were received here in 1876, and $250,000 received during the same year at the railroad ticket office. The two banks sold exchange during 1877 to the amount of $4,250,000, and bought $1,200,000 worth of Black Hills gold dust. The three leading hotels registered 10,800 arrivals during 1877, and a dozen smaller houses probably did as much more. About 4,000,000 pounds of freight were forwarded from here to the Black Hills during the same year. During the six months ending June 30, 1877, the Cheyenne and Black Hills Stage Line — which is a model of its kind — forwarded over 8,000 passengers and 6,000 express packages to the Hills. This company has nearly $200,000 invested in Concord coaches, fine stock, stage stations, etc.

Here the Colorado Central Branch of the Union Pacific Railway turns southward through the rich agricultural and mining districts of Colorado. Pullman palace cars run direct from Omaha to Denver, so that no trouble or delay is experienced in reaching Colorado's capital.

Hotels at Cheyenne — the Inter-Ocean, Railroad, and Dyer's — are not to be excelled in any city of twice the size. Rates are from $3 to $4 per day. The city is prolific in smaller and very comfortable houses, however, where the economically inclined can board at from $6.50 to $10 per week. Livery is cheap — from $4 to $7 per day; saddle ponies, $2. Rents for five and six room cottages are $30 to $35 per month. Living expenses generally about 20 per cent higher than at points east of the Mississippi. Cheyenne has always been a good point for mechanics. Wages average about as follows: carpenters, $2.75 per day; bricklayers, $4; plasterers, $3; salesmen, $75 to $125 per month; laborers $25 per month and board. Those who desire to purchase their own teams for the transportation of supplies northward, can procure outfits to good advantage here, and supplies of every nature are always found in large stocks. The city has been a rendezvous for parties going to and returning from northern regions so long that its merchants have made a careful study of this branch. Following are prices of leading items which go to make up an outfit for the miner:

Team of two horses		$100	to	$250
Team of two mules		200	"	300
Oxen, per yoke		80	"	100
Saddle horse		40	"	75
Saddle mule		40	"	60
Pack horse		40	"	60
Pack mule		40	"	50
Two-horse wagon		100	"	125
Four-horse wagon		125	"	150
Tent		25	"	40
Breech-loading rifle		35	"	50
Blankets, per pair		5	"	8
Flour	per sack,	$3 00	to	$4 50
Bacon	per lb.,	15	"	16
Syrup	per gal.,	75	"	1 25
Coffee, Rio	per lb.,	26	"	30
Sugar	"	12½	"	15
Tea	"	60	"	1 50
Baking powders	"	45	"	50
Beans	"	6	"	7
Grain — corn	per cwt.,	1 90	"	2 00
" oats	"	2 50	"	2 60

THE BLACK HILLS.

Enough time has elapsed since the discovery of gold in the Black Hills to thoroughly establish two very important facts: First, that deposits of both gold and silver of extraordinary richness and extent are there found; and, second, that the only really practicable routes to the Eldorado lead from the Union Pacific Railroad at the south. The road from Cheyenne passes northward through the best settled portions of Wyoming, where for years the finest herds have roamed, and where many occupied homesteads will compare favorably for the value and style of their improvements with those of any western state. The only line of telegraph to Deadwood is from here, and as before stated, the daily stage line is simply perfect. Freighting has here been rendered a mammoth as well as systematic business. There are over twenty large and reliable firms, running 200 wagons, engaged in the business. Then, counting in smaller firms, we find a total of 400 wagons, giving employment to as many men, and being able to easily move 2,000,000 pounds of freight at one loading. Freight rates to Deadwood are from $3 to $5 per hundred pounds, the price first named being the lowest for ox-team freights, and the higher price being the average for fast horses and mule trains. Below is a table of distances over the Cheyenne route. The measurements were made by odometer by Captain Stanton, Chief Engineer Department of the Platte:

From Cheyenne to	Miles.
Horse Creek	25.66
Phillip's, Chugwater Creek	47.86
Owen's, Chug Spring	66.13
Fort Laramie	88.28
Government Farm	108.22
Raw Hide Butte	116.50
Niobrara River	133.07
Hat Creek	147.80
Lance Creek	176.54
Cheyenne River	196.62
Beaver Creek	220.86
Cold Spring	242.61
Whitewood	263.79
Deadwood Postoffice	266.19

The highest altitude on the route is 6,509 feet. This observation is taken from an extreme summit in the Black Hills, a short distance from Spring Cañon, and about 230 miles from Cheyenne. The altitude of Deadwood is 4,640 feet. Fare, Cheyenne to Deadwood, $30. We found eating stations and comfortable frontier hotels strung thickly along the entire route, and obtained tip-top meals at from fifty cents to one dollar each.

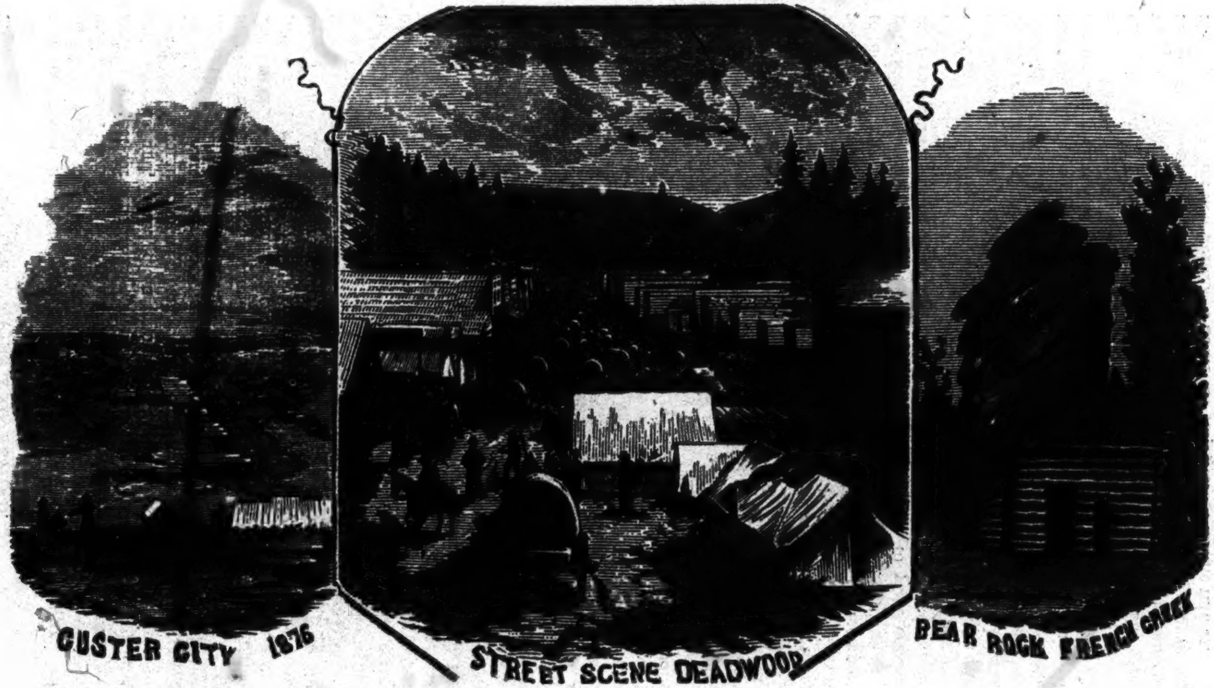
Pending the construction of the Black Hills branch of the Union Pacific Railway one *must* go by coach or private conveyance, and let us here remark that a forty-eight hour coach ride cannot be made more comfortably on any line in the country than on this one between Cheyenne and Deadwood. Fort Laramie, around which cluster thousands of interesting points of frontier history, is passed 88 miles north of Cheyenne. A few miles further on the route crosses the North Platte by a splendid iron bridge. Niobrara River, Hat Creek, Lance Creek, Cheyenne River and Beaver Creek are all crossed in rapid succession. Fairly entering the hills at Jenny's Stockade, about 50 miles from Deadwood, the road passes through the most attractive portions, and at different points commands views of Inyan Kara, Terry's, Harney's, and other noted peaks. The prettiest parks—features in which the Black Hills excel—the most extensive valleys, and the best forests all border the line. Beaver Creek Valley and its surroundings are especially prolific in beautiful landscapes, and present fitting welcome to the traveler from the south who enters the gold region by this route.

We entered Deadwood in September, when the narrow streets and muddy gulches were fairly bounding with the life and effort incident to preparations for the winter. Here was a mountain-crowded city of five or six thousand inhabitants, extending several miles up two narrow defiles, intruding upon other similar cities, and making as much fuss and bluster as eastern towns of a century's growth. There were log cabins and frame, in every conceivable attitude, tents on the hillsides, and solidly built business blocks along the narrow thoroughfares in the gulches, and the hills were fairly ringing with the clang of the hammer and saw on the dozens of new structures going up. Two large saw-mills were running night and day within the city limits, and the lumber was being put into buildings as fast as it left the saws. The improvements on the ground were estimated to have cost over one million dollars. The din of dozens of stamp mills reminded one of the old districts of Colorado, and the business done by over two hundred shops and mercantile houses was simply marvelous. Three daily newspapers, three banking houses, and some thirty hotels and eating houses were here crowded with business, where two years ago the amiable Sioux was reading his title clear and swearing he would have $80,000,000 for the country or die in the last ditch. Two or three variety theatres and one furnishing the legitimate drama were crowded nightly. The veteran actor, Jack Langrishe, was running the place of amusement last referred to. When business grew dull he wielded a graceful editorial quill on the *Pioneer*, and when it grew duller, in winter, he went down into the gulch, boiled water to thaw out the frozen ground, and made good "pay" from his claim.

Readers can gain an idea of the wonderful business developed in so short a time here in the heart of the northern wilds from the statement that one bank was doing a business of from $25,000 to $75,000 per day in gold dust and exchange, and a hotel had fed as many as 1,000 people inside of twenty-four hours. Single firms were selling goods to the amount of seven to ten thousand dollars per month. These, of course, were Deadwood's flush days, but the business has really not lessened—it has only been divided among larger numbers of tradesmen there and in the string of mining camps up and down the gulches.

Adjoining Deadwood above are Gayville and Central City, where most of the richest quartz mines and many of the stamp mills are located. These towns swell the population some three or four thousand more, and are perfect hives of mining industry. The din of mills is unceasing and at places almost deafening, and hundreds of miners find employment in getting out the rich quartz on the hillsides or in delving for the glittering treasure in the creek beds below. Then, dependent upon this great mining interest, are blocks upon blocks of little shops and stores, or more pretentious business houses, with an allopathic sprinkling of saloons.

Speaking of saloons leads us to think of the continual surprise afforded us by the condition of society. Here, in the heart of an utter wilderness, but two years before the jealously guarded rendezvous of the most powerful and warlike tribes of Indians on the continent, were thousands of people,



CUSTER CITY 1876

STREET SCENE DEADWOOD

BEAR ROCK FRENCH CREEK

Reached by Union Pacific Railway and Cheyenne and Sidney Black Hills Stage Lines.

who had rushed in from every quarter, under every circumstance and with habits as varied as the leaves on the trees. There was a degree of frenzy and abandon about their coming that presaged anything but order, and formed fruitful subject for sensational writers everywhere — the latter prophesying all sorts of evils, and, indeed, often manufacturing accounts of them from whole cloth. But a common interest banded these hardy and generous spirits together. In nearly all camps an organization was effected and stringent regulations adopted as soon as claims were staked off. If a black sheep *did* appear he was unceremoniously drummed out, and such examples did not often require repetition. The privileges arising through a code of miner's laws were considered sacred rights which were as universally respected as are local laws anywhere in our land. Thus disputes were as a rule amicably settled. We could walk into gulch claims that, for aught we knew, were as rich as California's best, and would find only the absent miner's pick and shovel in the prospect holes to hold the claims. Walking into a new camp here in the earliest days, upon the arrival of a mail, and inquiring whether there was anything for yourself, the general result would be: "Look in that cracker-box over there; it's got all the mail for the camp." Sure enough, every man of them would dive into that box, among hundreds of letters, sort them all over and honestly pick out his own. We have also always remarked upon another point, that we would sooner risk the chances of universal hearty welcome and unstinted hospitality in the rude huts of the miners than in a similar number of prosperous homes anywhere in the "States." From the man who was cleaning up $500 in glittering dust per day to he who had as yet failed to make his simple "grub-stake" of flour and bacon, we met with the same unvarying kindness.

Deadwood and other towns already have good churches and schools, secret and other societies, and large circles of as intelligent and cultivated families as can be found anywhere. Why, all know that this little army of pioneers are already knocking loudly at the doors of the national capitol for new territorial government, that railroads are heading hither, that the telegraph and three or four lines of daily mail have enlivened the wilds for a year, and that a stream of the precious metals is pouring southward and eastward over the Union Pacific that even astonishes "the natives." But we found other things which we believe are not so familiar to the average reader. A chain of thriving settlements extends from the beautiful Belle Fourche river at the extreme north to the South Cheyenne, at the southern edge of the Hills. In a year these energetic and unfaltering pioneers have set hundreds of stamps to work crushing the royal metal from the mountains of rock — and all of this ponderous machinery they have hauled from two to three hundred miles by wagon. They have started flumes and hydraulic mining enterprises on a scale with some of the great developments of the Pacific coast and are just *commencing* to reap the benefits. In a year many of the choicest little valleys in the wide west have here been made to yield bountifully to the agriculturist, and many miles of unexcelled pasturage have been covered with flocks and herds. Thousands of acres of forests have been turned to rough and dressed lumber, by machinery also hauled several hundred miles, coal mines have been opened, smelting enterprises started, oil wells made to furnish lubricating oils for the mills, local railway and street railway companies incorporated, and hundreds of other enterprises clustered among the romantic valleys or in the pineries — all of these things have been accomplished in this new northland under the very guns of hostile raiders.

If all of these things have been brought about amid dangers seen and felt, and those more dreaded unseen, what may we not expect of the Eldorado as it bounds forward under the banner of peace? But let us get to "bottom facts" and figures, and see how the different industries are founded and developed.

Mining.—Everybody knows that the gold hunting furore was the great primary cause of the peopling of this rich district, which otherwise would have remained a howling wilderness for centuries, and that the same glittering incentive is resulting in the settlement of the vast Big Horn and Yellowstone regions. The mining interest, therefore, comes in for the largest share of attention, and our visit of a week or more was largely taken up in walks or rides among the gulches and quartz mills. The mineral belt proper of the Black Hills extends about sixty miles north and south and is from three to ten miles wide. Gold, silver, copper and iron have been found in different formations. Bituminous coal of an excellent quality is found on the Redwater, 25 miles from Deadwood, and such kindred resources as cinnabar, mica, gypsum and slate are found in various localities.

Gulch or placer mines are found on nearly all streams in the Hills. The richest of these have thus far been found in the vicinity of Deadwood and have been extensively worked for two seasons, yielding their millions in fine dust and nuggets. These extremely rich deposits were rather limited in extent and are rapidly becoming exhausted, but hundreds of acres of deep "gravel" and "hill" diggings are found at different points on this great mining belt which are scarcely touched. The latter have been well prospected, and those on Spring, French, Rapid and lower Whitewood creeks, especially, are known to contain millions of dollars' worth of the shining metal. The scarcity of water and other natural obstacles have rendered the investment of large amounts of capital absolutely necessary in these localities and have prevented a yield while the smaller and richer gulches were turning out their thousands with little outlay. Great ditch, flume and hydraulic enterprises have been inaugurated on most of the extensive placers, and the season of 1878 will see most of the large claims yielding abundantly. Gulch claims on Deadwood creek have yielded all the way from $50,000 to $200,000 each, and during the first season—1876—$1,500,000 were taken out of the different gulches near Deadwood. Gold of every degree of fineness is encountered and sells at all prices from $16 up to $20 per ounce. We had the pleasure of handling it by the dozen pounds from certain gulches, where grains would be like powder, and from others where the nuggets ran as high as $120 each in value. Of course gold dust is the currency at all points, everybody carrying a sack or bottle to hold it and every business house keeping gold scales to weigh out the change required. It is the opinion of many experts who have examined the gulches of the Black Hills that no region of similar extent in the Rocky Mountains contains so large an area of placer diggings. Nearly all unite in the belief that many of the deep claims will be yielding largely for years to come.

But quartz mining is destined to become the grand industry, and will alone, at no distant day, require the attention of thousands of busy workers. The quartz deposits are often simply quarries of prodigious extent, reversing the order of mining in older districts and rendering it a much less perplexing piece of business. Other deposits are pronounced true fissure veins by California and Colorado experts, and are found protruding at different angles, and in some entirely new formations. The gold is generally found in decomposed quartzite and slate, and is easily separated by the simple stamp-mill process. So accessible and advantageous do most of the mines lie for working, that the ore is often mined at a cost of only $1.50 per ton. The milling then costs an average of $3.50 per ton. By this it will be seen that low-grade ores, carrying anywhere from $8 to $20 per ton, can be worked with profit. Ores of the same value in Colorado, Utah and elsewhere, can rarely be utilized, because they are of such refractory nature that expensive milling processes are necessary to separate the mineral from the rock. In such mines as the "Father De Smet," "Golden Terra," "Aurora," "Keats," and dozens of others in the Black Hills, there are thousands of tons of these easily-worked low-grade ores in sight, running from $10 to $50 per ton. When these mines were first discovered the "top rock" of some of them was pulverized in a common mortar, and yielded as high as $2 *per pound*. Specimens of nearly pure gold are yet often extracted; but to the wonderful extent of deposits of good *average* pay-rock in many different mines the Black Hills will owe their future greatness.

Black Hills Bonanzas.—To give foundation for our belief that this is the richest *small* mining district on the face of the globe, we will briefly describe a few of the leading mines: The "Father De Smet," near Deadwood, shows a body of pay-ore 100 feet in *width*, across the face of the hill, and from 10 to 40 feet in height. Shafts and tunnels have been sunk into this at a dozen different points, all penetrating good pay-ore and failing to disclose an end to the immense deposit. The average yield of ore taken from the mine at many different points is $18 per ton. Two 20-stamp mills are constantly at work on rock from this veritable mountain of gold-bearing mineral, and 200 stamps are soon to be employed in pounding out its millions of wealth. The mine, after enriching its original owners, was sold late in 1877 to California capitalists for $400,000.

The "Homestake," at Lead City, three miles from Deadwood, is almost as extensive a deposit of free gold ore as the first-named. There are six excavations in a distance of 500 feet along the face of the lode, each down about 50 feet, and 60 feet in width—the top, bottom and sides all in a splendid body of ore. About 6,000 tons of ore, averaging $16 per ton, have already been milled, and an 80-stamp mill was at last accounts *en route* from California to work exclusively on rock from this mine.

Near Central City is the "Reno" mine, also gold-bearing, extensive developments upon which demonstrate the fact that there is a compact body of exceedingly rich ore in sight, 350 by 700 feet in dimensions. Since the discovery some $4,000 worth of work and material have been expended on the mine. All of this, as well as the "pocket money" of the owners, has been pounded out of the rock in a common hand mortar and washed out in an ordinary prospecting pan. A single ounce of ore, selected as a specimen, yielded $3.50, and one pound and a half of the rock pounded to pieces with a sledge-hammer, gave the astonishing return of $16. We have it from reliable authority that $100,000 in gold was offered for this property and refused.

The "Roderick Dhu," near Deadwood, is pronounced a true fissure vein, and has a record worthy of note. It has been traced for a distance of 1,400 feet on the surface and, at several points where shafts have been sunk, shows a crevice 20 feet wide, which pays from the grass-roots down. All of the ore between these walls is fed to the mills without sorting. During the last five months of 1877, 4,000 tons of ore were taken out and crushed, yielding about $16 per ton. A perfect leaf of gold, weighing eleven pennyweights, and taken from one of the shafts, is one of the specimens on exhibition at the mine.

The "Fairview" is another of the Black Hills quartz mines which tells its own story every day in the week. At the bottom of a 40-foot shaft the ore-body is 100 feet wide, and of universally good grade. Over 2,000 tons of free-gold ore, yielding from $12 to $20 per ton, have been worked at the company's mill.

There are dozens of others on a par with the above, but it is needless to mention them here. Forty different mines are crushing ore and at least one hundred have large piles of it on the "dump," waiting for milling facilities. Two of the principal mines alone keep ten mills busy constantly. On October 23, 1877, the Davenport ten-stamp mill cleaned up $1,534 from 100 tons of "Homestake, No. 1" ore; October 31, Elliott & Parker's ten-stamp mill cleaned up 108 ounces of gold from eight tons of "Father De Smet" ore; $12,000 gold was the result of a ten days' run from Pecacho ore under seventy stamps; ten days' run of ten stamps on "Fairview" ore returned $7,000 in gold; December 10, Parker's twenty-stamp mill cleaned up $6,000 in gold from a nine day's run on ore from the "Hidden Treasure." The plates only were cleaned, and the batteries always retain as much gold as is taken from the plates. These figures are merely given as average results of stamp mill work in the Hills and for the benefit of doubting readers. Dozens of others would show the same returns, and the end is not yet. The cry everywhere is "stamp mills!" There were 47 mills, with a total of 700 stamps, in operation in January, 1878, and 8 more, having 300 stamps, in course of construction. All this *in just one year from the time of entry of the first stamp mill.* It is safe to say that the summer of 1878 will see 1,200 stamps running day and night upon Black Hills gold ores — more than are in operation in Utah, Wyoming, Montana and Idaho combined; and, extravagant as it may seem, we firmly believe that this now comparatively unknown and unappreciated little treasure house will send more gold to the marts of trade during the year than all of the territories put together.

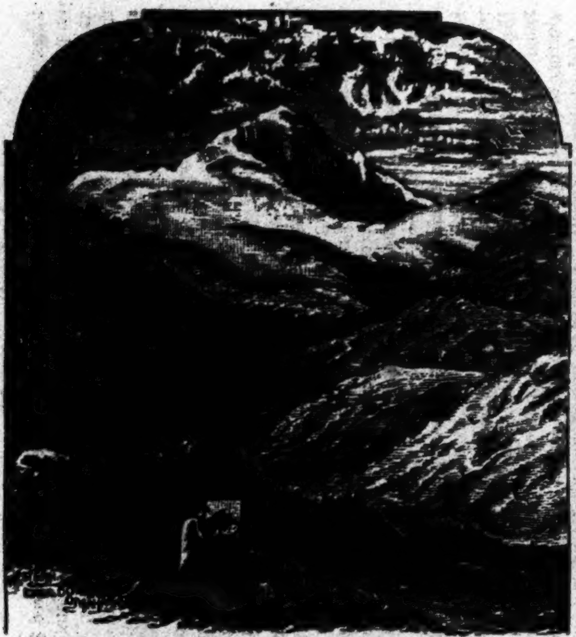
The Silver Mines.—The discovery of silver is of more recent date than that of gold, the summer of 1877 having almost passed before much attention was attracted to the silver-bearing ores of the Hills. Bear Butte, a dozen miles from Deadwood, is the principal silver-mining camp. It boasts a population of about 200 people, who all hang their faith upon the present and prospective value of the silver veins. The mineral belt is not very extensive, but enough mines have been discovered, which bid fair to rival the best of Colorado and Utah, to assure wealth for many. The ore is very easily worked, a large proportion needing only the old reliable stamp mill to make it give up its wealth. The "base" portion — that which cannot be reduced by stamps — is susceptible of reduction by the smelting process, with but trifling cost. A smelter and crusher is in successful operation, proving not only the richness of the ores, but also the ease with which the solid rock is made to yield its wealth of silver.

Among the principal silver mines is the "Florence," into which a tunnel 300 feet in length has been driven. The tunnel follows a rich ore body all the way. Large shipments of the mineral were made to the Omaha Smelting Works previous to the completion of the local works, and after paying the expenses of freighting nearly 300 miles by wagon and 500 by rail, realized handsome returns for the owner. The "Red Cloud," "Sitting Bull," "Merritt"—Nos. 1 and 2, and the "Silver Harvest" all show fine bodies of high grade ore, which impatiently await the magic touch of capital to transform them into silver bars. Ores from these mines assay all the way from $50 to $2,000 per ton. Bald Mountain, five miles above Deadwood, is another promising silver district, having very high grade ore in several mines. A town called Silver City has been laid out and is growing rapidly.

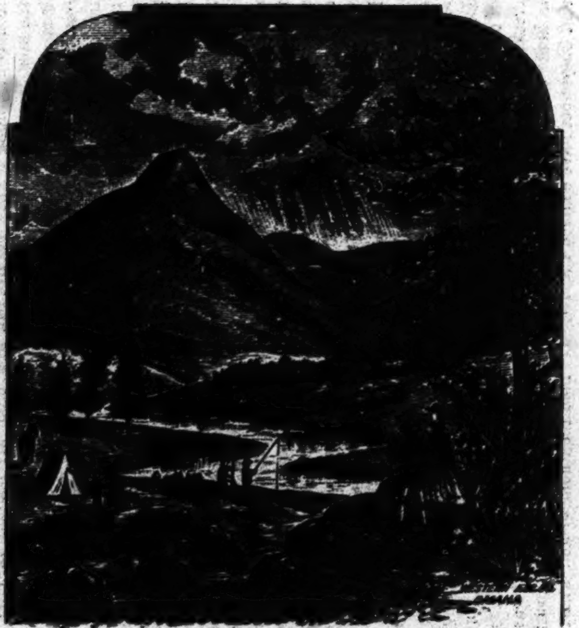
Location, Yield of Mines, Sales, Etc.—Up to January 10, 1878, there had been 7,200 gold and silver mines recorded in the different districts of the Black Hills. The yield of gold for the year 1877 was estimated by bankers and other competent authority at nearly $4,000,000, four-fifths of which went south by express and private conveyance to the Union Pacific Railroad. Leading sales of mining property have been as follows: "Father De Smet," $400,000; "Golden Terra," $80,000; "Homestake, No. 1," $70,000; "Homestake, No. 2," $50,000; "Florence," $51,000; "Old Abe," $42,500. Hundreds of other cash transfers have been made at prices from $1,000 up to $25,000. The California mining capitalists, who have been so anxious to determine the existence or non-existence of true fissure veins in the Hills, have invested nearly a million of dollars in mines and mills around Deadwood, as a token of their present belief in the matter.

Petroleum.—As if nature could not too bountifully lavish her favors upon this until recently *terra incognita* of our dominions, aside from producing the valuable precious and base metals, we find incontrovertible evidence of the existence of an extensive petroleum deposit, the products of which, at no distant day, promises to form a large item in the catalogue of our industries. In the fall of 1877 a flowing spring of genuine petroleum was discovered eight miles to the southeast of Jenney's Stockade, on the Cheyenne and Black Hills stage road. The crude oil has been taken to Deadwood by the barrel and is now being used for lubricating purposes at the quartz mills there and elsewhere. Those of much experience in the oil fields of Pennsylvania pronounce this Black Hills production superior to the native oils of that state, it possessing a much heavier "body" and with less grit or impurities. The fields are some twenty-five miles wide with a length unknown. Up to February 1, 1878, nearly 100 locations of 160 acres each had been made, and improved machinery for boring was en route. Eastern lubricating oil, laid down at Deadwood, costs $31 per barrel. As great quantities are used in the Hills the value of this discovery can in a measure be estimated.

"*Ranching*," *Lumbering, Scenery, etc.*—The numerous valleys, fertile soil and abundant rainfall in the Hills, together with the best market in the land, have combined to render "ranching," or farming, a very general avocation. The soil is generally a rich black loam, well nigh bottomless, as the valleys have long been filling up from the crumbling mould of the adjacent hills. Rain falls in light warm showers almost daily in summer—an unaccountable phenomena in that plain-bound oasis. In the lower valley, wheat, oats, barley and all hardy vegetables are grown without trouble, and in the higher parks, potatoes, cabbages, peas, etc., yield abundantly. The Spearfish, Belle Fourche and Redwater are the principal valleys, and already have much of their arable area



JAMES PEAK, NEAR CENTRAL CITY.



VIEW IN ESTES PARK, COL.

Reached via Colorado Central Branch of the Union Pacific Railway.

taken up. One farmer in Spearfish valley (Judge J. S. Beck) cleared $15,000 on potatoes and other vegetables from his 160-acre ranch in 1877. Potatoes sell at from 7 to 10 cents per pound at any of the mining camps; cabbage, 5 cents; turnips, 8; onions, 12; squash, 10; corn, 6; oats, 6. A luxuriant growth of grass spreads over the whole region, even upon the steep hill sides, and is utilized at many points by fine herds of cattle and sheep. The varieties of grass are almost endless; wild oats, wild rye, crowsfoot, grama and blue stem are among the varieties noticed. The areas of hay lands are not extensive, as a rule, but small patches are found in the parks and along the streams everywhere. Hay sells at from $20 to $30 per ton at Deadwood. Agricultural districts outside of the Hills are so far distant that the farmer near the mines will always secure extravagant prices for produce.

Wild fruits are exceptionally plentiful. We repeatedly feasted on plums, which were superior in flavor to any wild ones we have ever eaten elsewhere. Raspberries, gooseberries, currants, service berries, bear berries, strawberries and cherries, with other varieties that to us are nameless, are found in different localities. Hazel nuts and hops are also found, the hops making a growth scarcely equaled in the rich bottoms of the Mississippi and Missouri. The flora is none the less varied. Nearly all the wild flowers familiar in the east are reported here, and the visitor is greeted by some new and very beautiful species. Fish are plentiful in some of the streams, but better hunting grounds can be found nearer the railroad, because a horde of hunters have for two years been glutting the ravenous appetites of Black Hillers on the trophies of the chase.

The lumbering interest has assumed proportions only second in importance to that of mining. Pine, spruce, oak and birch are leading varieties among the hills, while cottonwood, box-elder and ash border most of the streams. Sixteen saw mills are at work in the immediate vicinity of Deadwood, and the forests are full of them in other sections. Besides the large quantities of lumber needed for building purposes it is consumed very rapidly in timbering mines. It sells at from $28 to $30 per M delivered.

Stage roads track the Hills in every direction and from these running south to Sidney and Cheyenne, especially, views rivaling the beauties of the Catskills can often be obtained. It should be remembered that the scenery here more nearly resembles that of the eastern mountains than anything in the west. The soft outlines, the luxuriant vegetation, and the rippling brooks are leading constituents, rather than cold, gray cliffs, barren walls and rushing torrents so common in the Rockies. Sulphur and other medicinal waters are found in the southern part of the Hills, and a cave, well worthy the visit of every traveler, is one of the attractions near Crook City in the northern portion. The admirable views of Sunshine Falls and Sentinel Rock on another page, will give readers an idea of the hundreds of other similar gems of Black Hills scenery.

Mining Camps, Population, Cost of Living and Routes.—Prominent camps outside of Deadwood are as follows: Gayville, South Bend, Central City, Golden Gate, Anchor City, Oro and Lead City, all within a circuit of four miles from Deadwood and centers of rich gulch and quartz mines. The total population of these is about 5,000. Crook City, located in a beautiful park on Whitewood creek, 10 miles east of Deadwood, contains about 500 inhabitants. It was named in honor of General Crook,—whose successful campaigns against the hostile Sioux and Cheyennes have enabled the settlers to hold their homes—and is surrounded by rich mines as well as adjacent to fine agricultural valleys. Rapid City is a thriving town of about 700 inhabitants, located 42 miles south of Deadwood, on the Sidney and Black Hills stage road. Large quartz veins, carrying both gold and silver, have been discovered in the vicinity. Deposits of iron ore and gypsum are also quite extensive here. Rapid Creek, on the banks of which the town is located, furnishes an admirable and never-failing water power by its rapid fall and large volume. It courses a valley of surpassing beauty and marked fertility, some 40 miles in length by from one to two miles in width. On the same stage line and 52 miles south of Deadwood is Custer, the pioneer settlement in the Black Hills, and in our estimation by far the most beautifully located. French Creek here waters a broad, level valley, which is bordered by low, grassy hills, dotted with clusters of pines. Some of the highest peaks in the hills limit vision in the distance and form background for one of the loveliest landscapes in the country. Good quartz mines have been discovered in the vicinity and the deep gulch diggings of French Creek were the first prime incentives to the rush of gold seekers. Population about 500. Galena, 12 miles from Deadwood, is a promising camp in the Bear Butte silver mining district, containing some 400 people. Good wagon roads and daily stage lines connect nearly all of these points with Cheyenne and Sidney.

At the convention called favoring the organization of a new territory in the fall of 1877, 19 towns and mining camps were represented. The present total population of the Black Hills region is estimated at from 12,000 to 18,000. More people have been in the Hills, but hundreds of the "driftwood" have folded their tents and sought other fields, leaving the real bone and sinew to conquer the wilds. We believe that few fields are presented which offer such inducements for the investment of small or large capital, but he who possesses neither dollars nor energy can exist to a better advantage east of the Missouri. There are mines, pastures and farmlands here which will enrich twice the present population, in spite of all reports of departed grumblers.

Cost of living at principal hotels in the Hills is from $12 to $20 per week; at boarding houses, $8 to $10. Miners often live in cabins and "batch it" at a cost of from $3 to $5 each per week. Prices of provisions, aside from ranch produce already noted, are about as follows: Flour, $8.50 to $10 per cwt; bacon, 18 to 25 cents per pound; butter, 35 to 45 cents; dried fruits, 18 to 25; coffee, 35 to 45; sugars, 18 to 20; eggs, 45 to 75 cents per dozen. Cottages of only two and three rooms rent for $25 to $40 per month; business houses, 20 × 40 feet, rent readily at $150 per month. Good miners nearly always find employment at from $4 to $5 per day. Novices are numerous now and don't receive more than half as much as the skilled workmen.

All agree that the old-established routes to the Union Pacific Railway, via Cheyenne or Sidney, offer the only direct and safe means of exit from the Black Hills. They are the only natural ones and of course the tide of travel and shipments of treasure and produce must always flow over them. Concerning this general opinion of residents the *Black Hills Mining Reporter* says: "The comfort, speed and popularity of Union Pacific Railway trains is too well established to need a word of commendation. From Sidney or Cheyenne passengers take the coaches of the Cheyenne and Black Hills Stage company; well superintended, the roads well stocked with four and six-horse Concord coaches and with every comfort of stage travel, and over a splendid road, reach Deadwood in 50 hours from the time of starting, the distance being 260 miles. The fare (through ticket) from Chicago to Deadwood is $49.25. This is the only line upon which military posts are established, and over which a telegraph wire runs. This being the acknowledged best route, the traveling public should choose no other, for the following reasons: The removal of the Indians by the government from the Red Cloud Agency to the Missouri river, renders the southern route from the U. P. R. R. entirely free from marauding bands; while the northern routes via Pierre and Bismarck will be constantly crossed by these turbulent spirits, going to and from Sitting Bull's camp and the excellent hunting grounds of the Yellowstone and Powder river countries. The recent raids made on the Bismarck coaches fully authenticate this. Therefore, for safety, speed and comfort, we would give the Sidney and Cheyenne routes our unqualified and hearty recommendation. Having personally obtained a thorough knowledge of all routes we give this entirely free from recompense from the railroads or the stage lines, and with certainly no prejudice, but with a conscious sense of doing our whole duty to the vast immigration that will necessarily visit this new Eldorado."

It should be remembered that Custer, Hayward, Rapid City, and other points at the eastern edge of the Hills, are on the Sidney route, while all mining camps in the center or on the western side of the Hills, are either on the line of the Cheyenne route or are easily accessible from it. (See map in this pamphlet.) Custer can also be reached from the Cheyenne route; a daily stage line branching off from Jenny's Stockade for that point. Fares from Deadwood to Crook City, 10 miles, $2; to Rapid City, 42 miles, $6; Cheyenne or Sidney, $30. Fares from Deadwood to all points in the Hills will average fifteen cents per mile.

THE BIG HORN REGION.

Lying almost wholly in northwestern Wyoming, and covering an area of some 15,000 square miles, is the great Big Horn Region, which is so rapidly coming to the front as a rendezvous for overflowing civilization. Rising near the head of Powder river the Big Horn Range trends off grandly to the northwest for a distance of 200 miles, and then, turning almost directly west, soon loses itself in the different ranges bordering the Yellowstone National Park. Many of the mountain peaks rise up 12,000 feet above the sea, while the average altitude of the valleys at the base of the range is 4,500 feet. A scene which we can never forget is that which we enjoyed from the Cheyenne route as we caught our first glimpse of this great water-shed. We can do no better than to quote what we jotted down then: "Nearly the whole of the resplendent range, stretching off along the northwestern horizon 150 miles, is grasped by the eager vision—'a cloud-land mirage!' we first exclaim, its lofty peaks appearing white, fleecy and ethereal enough to belong to cloud-land, and yet too surpassingly grand to be spared by even a beautiful earth. In most harmonious contrast to the great banks of glittering snow—banks of burnished silver, they looked to us—are the long, purple-tinged pedestals upon which they rest. These are the unusally rugged foot-hills, and they receive their rich coloring from dense forests of pine and spruce, which cover them from base to summit. From near the center rise Cloud and Hayes peaks, the proudest landmarks of all the northern country, while at frequent intervals on either side other snow-capped sentinels are clearly outlined against the sky. Even from this distant view the grand cañons of the Tongue river tributaries are defined—sombre and threatening gashes, and sometimes almost cavernous in their rocky mould."

It was the writer's good fortune to traverse this grand wilderness almost from end to end, and to several times cross the Big Horn range in the vicinity of Cloud Peak. From the summit, at an altitude of some 12,000 feet, a view which can hardly be equaled in the mountain ranges of America was obtained. Eastward it swept from the Powder river region to that of the Yellowstone and a radius of 250 miles was but a comprehensive panorama for the naked eye. The Tongue, Powder, Rosebud and other rivers could be traced almost from the feet of the enraptured visitor, out northward among their lesser mountains and flanking plains, until lost in the picturesque brakes of the Yellowstone, 150 miles away. Westward for over 100 miles stretched the valley of the Big Horn, the crystal sheen of that river itself often emerging from graceful groves of richest green. Still beyond in that direction were the Wind River mountains, with their thousand rugged canyons and unbroken covering of snow. Yet beyond—over 200 miles distant—was the Shoshone range, bordering the National Park, its giant peaks rising up like spectres in the dim background saying, "thus far and no farther shalt thy vision penetrate." Then the grand mass of granite upon which we stood, so long the fascinating *terra incognita* of the northwest, and to-day the richest field of promise in all our broad land, afforded a study never to be forgotten. Mountains upon mountains rolled up toward our common footstool like the exaggerated waves of an ocean—with "white caps" of snow for "white caps" of foam—these, when analyzed, becoming live forests of refreshing green or fire-licked forests of sombre brown and gray, sheltering hundreds of mountain torrents, leaping waterfalls, pine-embowered parks and rock-girt lakes. It was simply a survey of America's best hunting-grounds, her deepest and grandest solitudes, and her land richest in native tradition, adventure and "extravagant possibilities." Much abler pens filled columns with glowing descriptions of those "dizzy altitudes, blackened cliffs and awful gorges," and yet the half has not been told.

The region has always been coveted by different savage nations, and its lovely valleys have been the scene of perpetual strife. The Crows and Shoshones have for years sacrificed their best blood in vain endeavors to rid it of their deadly enemies, the Sioux. The tribes unite in calling the Big Horn and Tongue river regions the most beautiful of America—the natural home of all noble game and of the most delicate fish. The Crows have a beautiful saying, "The Great Spirit only looks at other countries in summer, but here he dwells all the year," Then another tribe have a tradition which tells them that this country is nearest the "happy hunting ground," and that the warrior who falls here is particularly favored, because he makes only one short step from the old scenes to the enchanting new.

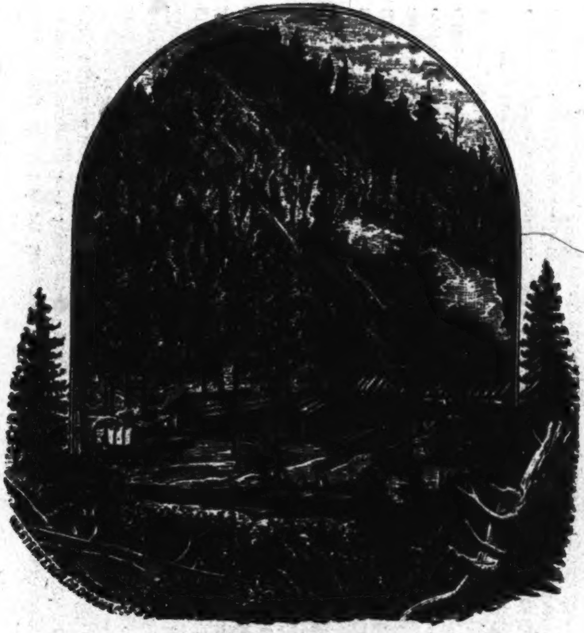
Gold in the Big Horn Mountains.—"Colors" of gold have been found in nearly all the streams debouching from the Big Horn Mountains, but as yet the *source* of all these little grains is a profound mystery. It is known that mining was carried on there many years ago by the Spanish explorers from the south and that many trappers and scouts, during hasty visits in our own time, have found deposits of considerable richness. Numerous small and a few large parties of miners have entered the region and found splendid prospects of both gulch and quartz gold, but always encountered supernumerary savages as well.

One year ago the region was considered practically impenetrable by any force short of a regiment of well disciplined troops; and the operations of the military have always been so thoroughly confined to taking care of "Mr. Lo" (sometimes to taking care of themselves) that no real opportunity has been offered for a thorough search of the gulches. In January, 1878, considerable excitement was created by the discoveries of rich quartz mines on Crazy Woman's Fork of Powder river. We have seen immense deposits of decomposed gold-bearing quartz during our perambulations with the military in the mountains near Cloud Peak. The veins were clearly defined ledges of from five to twenty feet in width, protruding from the vast walls of granite so plainly that they could be traced for miles. We still believe that quartz and placer mines of an extent and richness second to none in the western mountains will be found within the grand confines of this section.

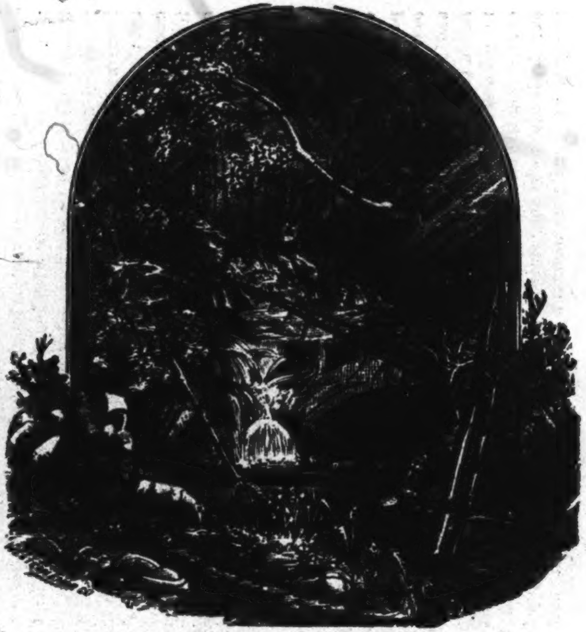
Valleys, Soil, Climate, Game and Fish.—The principal rivers are the Powder, Tongue, Wind and Big Horn, with hundreds of splendid tributaries which well deserve the title of "rivers." For nearly two hundred miles along the northeastern base of the Big Horn mountains, the clearest and most beautiful of streams sweep violently down through their picturesque gorges, and course northward a hundred and fifty miles to the common reservoir—the great Yellowstone. These often occur at intervals of less than five miles, and it is seldom that more than a dozen miles of unequaled uplands separate them, or that crystal springs do not send pretty laterals bounding over gravel beds to the more pretentious creeks or rivers. The valleys are from one to ten miles wide, and the soil is usually a rich, black, porous loam. Every element of fertility seems to be present, and every species of vegetation attests its wonderful nourishment by a most luxuriant growth. Irrigation will be a necessary auxiliary to cultivation, but with these numberless dashing streams, bearing with their beauty the impalpable fertilizers of crumbling mountains, it will be a pleasure rather than a task. Vegetable life is much the same as in Rocky Mountain regions four hundred miles farther south, except that the varieties here often have a much stronger growth. Wild rye is found so tall that a cavalryman could nearly, if not entirely, hide himself in it, while mounted. Wild oats, native blue-grass, and all the varieties of plains grasses, present this same strong testimony of fertility of soil and congenial climate. Natural pasture lands could not be finer than these. The average altitude of the valleys being less than 4,000 feet, the region of summer frosts is not reached. Wild fruits and flowers are as plentiful as in the Black Hills.

Many of the valleys contain enough cottonwood, ash, box-elder and other timber to supply logs for fuel or building, for years to come. The great mountains overlooking on one side, and many of the bluffs below, are covered with forests of pine, hemlock, spruce and cedar, furnishing inexhaustible quantities of building material. We opine that about every other settler will own a coal mine, as the "black diamonds" crop out almost everywhere, and are known to furnish an excellent quality of fuel, as they have often been tested in the camp forges of the military.

We found some of our choicest hunting grounds in this region, and, as already intimated, it has always been considered a very paradise for hunters, white or red. It was the chosen resort of hundreds of Northwestern Fur Company employes half a century ago. Many were the batteaux, or Mackinaw



SENTINEL ROCK, BLACK HILLS.



SUNSHINE FALLS BLACK HILLS.

REACHED BY CHEYENNE AND BLACK HILLS STAGE LINE, VIA UNION PACIFIC RAILWAY.

boats, which floated down the great rivers from these wilds, freighted with the richest offerings of field, forest and stream. A pretty good joke—and one with solid foundation in fact—is told at the expense of one of the prominent officers who led a large expedition through this region about ten years ago: The column was near the forks of the Piney, and scouts came back with the report that a large body of Indians was moving up the valley, with evident intent to attack. The general hastened forward, took in the terrors of the situation with his field glass, and soon had his forces posted in first rate style for defense. The attacking column advanced in very close order, and kicked up so much dust that little could be seen of it. But it surged on resistlessly. Men were holding their breath in the tremor of suspense, and just as they expected the order to fire a sharp breeze wafted away the dust, disclosing a herd of a thousand elk—*ten* thousand, our informant says, but we should prefer not to spoil a good story.

Elk, buffalo, mountain sheep, black and white-tailed deer, antelope, grizzly and other varieties of bear, with all kinds of small game, have always found in this region their most coveted surroundings. The streams are yet full of beaver and other fur-bearing animals, and the country is literally alive with several species of the wolf. The Yellowstone, Big Horn and Tongue rivers and their hundreds of tributaries, are plentifully supplied with trout, pike, shiners, catfish, suckers, and other varieties of fish.

Two years ago only the ruins of long since abandoned forts suggested thoughts of past or present civilization. Now three of the largest military posts in America—one near the spot where the gallant Custer fell—are located at convenient intervals. In January, 1878, great excitement was caused by the discovery of rich quartz mines on the head waters of a fork of Powder river, where just one year before, General Crook's forces fought one of the hardest battles of the Sioux war. The telegraph is now stretched from Fort Fetterman, on the Platte, to Camp McKinney on Powder river—where the Sioux, ten years ago, burnt and plundered old Fort Reno—and the whole region is thus placed on gossiping terms with the outside world. The spot now occupied by Murphy's Ranch, on the Clear Fork of Powder river, was for many years one of the Indians' choicest camping places, and the broad and beautiful valley is there fairly strewn with tepee poles and other remnants of the aborigines' favorite habitation. Herds have been pushed northward far beyond the Platte, up along the Cheyenne and Big Horn road, ranches being scattered along at all the crossings of the streams from Cheyenne through to the base of the Big Horn mountains, a distance of three hundred miles.

The Cheyenne route from the southeast is the only one which yet furnishes a complete list of camping places, and which has been measured by odometer. It is also the only one yet traversed by the writer, and therefore the only one of which he can speak understandingly. It is the old overland Montana route, possesses a splendid road-bed and easy grades from beginning to end, and lies over the country which would naturally be traversed by the proposed Cheyenne and Montana railway Following the regular Black Hills road to Hunton's ranch, on the Chugwater, the emigrant then branches off to the northwest upon the old and constantly traveled government highway to Fort Fetterman. Such clear, strong streams as the Laramie river, Horseshoe, Big Cottonwood, Elkhorn and La Bonte creeks are crossed *en route*, affording fine camping places with plenty of wood and pure mountain water. From Fort Fetterman northwest, a distance of ninety miles, over choice grazing lands, the traveler will find as fine a road as crosses any portion of our prairies. This stage of the journey completed, Camp McKinney, on Powder river, is reached. Forty miles distant the grand Big Horn range rises in plain view, and the journey thither is finished easily in a day's ride. At the Powder river crossing a good stock of provisions is always on hand, and that point will be found a most convenient outpost. A weekly mail now goes to that point via Cheyenne. A fair wagon road leads from Deadwood to Camp McKinney—distance, 200 miles. Following is an accurate table of distances over the Cheyenne route:

	Miles.
Cheyenne to Lodge Pole Creek	16
Lodge Pole Creek to Bear Springs	20
Bear Springs to Chugwater	14
Chugwater to Hunton's Ranch	15
Hunton's Ranch to South Laramie River	22
Laramie River to Cottonwood Ranch	20
Cottonwood Ranch to Elkhorn	25
Elkhorn to Wagon Hound	15
Wagon Hound to Fort Fetterman	16
Fort Fetterman to Sage Creek*	14
Sage Creek to South Fork Cheyenne River	18
South Fork Cheyenne to Antelope Springs†	21
Antelope Springs to Dry Fork of Powder River	23
Dry Fork Powder to Camp McKinney	14
Camp McKinney to Crazy Woman's Fork	27
Crazy Woman's Fork to Clear Fork	20
Clear Fork to base of Cloud Peak	25
Total	325

The distance from Cheyenne to Virginia City, Montana, by this route, is 690 miles. Wyoming legislators have already memorialized Congress for a land grant in aid of a railway leading thither. As camps, trading posts, mail routes, and the telegraph are established to the southern boundary of the Big Horn region, and prospectors have already rushed in by the hundred, the daily six-horse coach over that line is a feature of the not very distant future. The Big Horn region, so vast, so rich in agricultural and pastoral resources, and undoubtedly possessing great mineral wealth, will then soon be pouring its cattle and sheep, its grain and wool, and its riches of the sluice-box and quartz vein out over the common trans-continental highway. Verily, whither *is* the course of empire?

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* No wood.

† Water poor and scarce.

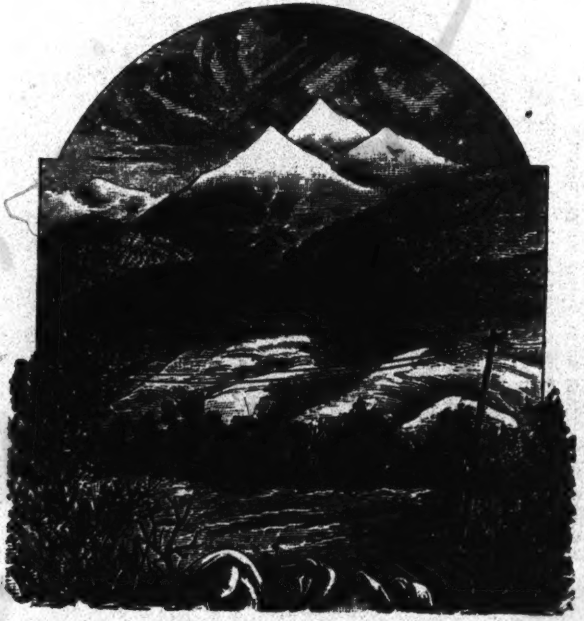
CHAPTER III.

COLORADO—WEALTH AND ATTRACTIONS OF OUR YOUNGEST STATE.

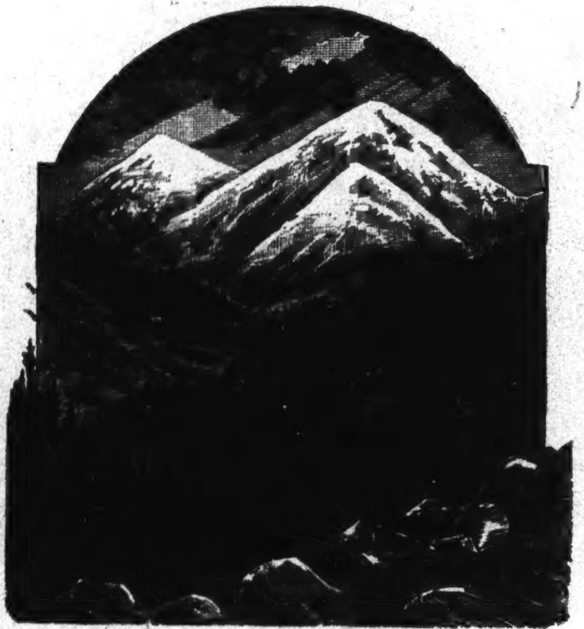
Now, as the tourist glides southward over that prodigy of all Colorado railways—the Colorado Central—and crosses into the realms of the bright Centennial State, he may wish to glance at Colorado, past and present. Only nineteen years ago the germ of this noble commonwealth was planted along the golden gulches he is so rapidly nearing. In these nineteen years Colorado's mountains have yielded $80,000,000 in gold and silver. It is estimated that her pastures, farms and dairies have furnished her markets with $50,000,000 worth of products, and her taxable wealth has increased from a few thousands in 1859 to over $40,000,000 in 1877. From the small gatherings of frenzied miners along her mineral veins in palmy '59, she has grown to the enviable strength of 150,000 busy, conquering natures, these inhabitants fairly charged with a nervous, uncompromising energy, born of sunny skies and purest ether. Over 60,000 mines have already been discovered and recorded, and the din of the quartz mill, the drill and the blast echo night and day from a thousand mountain sides and mountain depths. The yield of gold, silver, copper and coal for 1877, according to the best authority, was $9,000,000. The shipments of live stock amounted to 75,000 head; of wool, 5,000,000 pounds; yield of wheat, 1,750,000 bushels; value of manufactured articles, $5,838,209.60; number of live stock in the state, 1,500,000 head. The following table represents the value of all productions for the year 1877:

Bullion	$7,913,411 00
Cattle	2,233,200 00
Wheat	1,837,500 00
Other agricultural products	775,000 00
Hay	1,250,000 00
Coal	1,065,385 00
Wool, hides, etc.	1,340,000 00
Manufactured products	5,838,209 60
Total	$22,252,705 60

Seven years ago Colorado was without railway communication, and generally styled "out of the world." To-day her energetic citizens point with pride to eight different railroads tracking her broad prairies and plunging even to the hearts and heights of her mountains. The total number of miles of these lines operated is 1,133. Half of these have been constructed while the railway interest has been paralyzed in almost all other sections, and Colorado's showing is due almost wholly to the invincible pluck of her citizens, the wondrous wealth of her mines and the riches in her grasses and farm lands. Seven of these lines, aggregating nearly 1,000 miles, were built while she was yet a territory. The daily mail, telegraph and express radiate from her capital city to every nook and corner. From the garden spot of the state you are just entering at the north to the furthermost mining camp south and west you will find these pulsating and



LONG'S PEAK FROM LITTLE THOMPSON.



GRAY'S AND IRWIN'S PEAKS, COL.

REACHED VIA COLORADO CENTRAL BRANCH OF THE UNION PACIFIC RAILWAY.

life-giving arteries contributing their share toward founding an empire of wealth.

Commercial and educational interests have in these few years of Colorado's history augmented in almost incredible speed. In the past seven years she has trebled in population and wealth. The state already boasts thirty-five banking institutions, with a capital of over $2,000,000. Wholesale houses carrying large stocks and representing every line are not only found in Denver, but at several other valley and mountain cities. These do a business of from $500,000 to $1,500,000 each, and come into close competition with heavy eastern dealers. Internal revenue collections in 1877 were $80,000, or more than those from Arizona, Dakota, Idaho, Montana and Wyoming combined. As an evidence of the educational and literary advantages enjoyed here in the heart of the continent it may be mentioned that the state contains 275 free schools, a magnificent State University and half a dozen well-conducted sectarian and private seminaries. No people read more, these not only supporting a dozen good public libraries, but also sustaining forty-five well-edited newspapers, one-sixth of the number being published daily.

In points of climate or scenery Colorado is rivaled by no other state or territory in the land. Her pleasure and health resorts, from one to two miles above sea level, afford an atmosphere which is an elixir in itself. Into her princely area of 105,000 square miles are crowded every variety of valley and mountain temperature. Sunshine, dry streets and a maximum of warm days may be enjoyed in her sheltered valleys in winter, or flowers and snow banks and a frosty atmosphere may garnish the mountain camp-ground in midsummer. The range of mineral waters for either bathing or drinking purposes is probably greater than in any region of similar extent on the globe. Hot sulphur and soda for bathing, cold soda, seltzer, iron, chalybeate and sulphur for drinking, are found at altitudes ranging from 5,000 to 9,000 feet above the sea, and in several cases are within sight of the railway. The scenic attractions are none the less varied, and can nearly always be viewed from the luxuriant palace car, the comfortable day coach, or by unsurpassed mountain carriage roads. The invalid, whose mind *must* feed on something, can combine business and profit with the great aim of his sojourn, for adjacent to the most charming health resorts are Colorado's grandest mining, smelting and railroad enterprises. These offer an ever-fruitful study, and always present a field for business venture. As a prominent writer expresses it: "Life everywhere is safe; travel is easy; the mountains are full of neat little homes." No region of such multiplied attractions could be more accessible.

This is but a hasty outline, an imperfect peep through the portals of one of these marvelously rich and thriving regions so thoroughly permeated and drained by the Union Pacific and its busy feeders. While following the bands of steel through the valleys and into the mountains we tried to become acquainted with the pleasant topic in all its details, and in pages following will give our readers the result.

THE COLORADO CENTRAL BRANCH OF THE UNION PACIFIC RAILWAY.

One of the most important of all home enterprises of the state is this giant young railway. The completion of its main line from Denver to the Union Pacific, at Cheyenne, marks a grand era in the railway history of Colorado, and supplies us with striking illustrations of healthy "outwest" enterprise. Begun seven years ago, at Golden City, with prospects anything but bright, it has not only been the pioneer for the farmer in the valleys, but has carried with it the means of development for the miner within his walls of granite and at his sluice-box as well. Under the auspices and continued guidance of the present president of the company, Hon. W. A. H. Loveland, it has been pushed to completion with an energy worthy of note. The first section of sixteen miles was commenced and completed in the summer months of 1870. This was the standard broad-gauge, and connected Denver with Golden, at the foot-hills. During the summer and fall of 1872 the narrow-gauge line was pushed through the wonderful Clear Creek Cañon, from Golden to the heart of the great gold region at Black Hawk, a distance of twenty-two miles. Early in 1873 four miles of narrow-gauge were completed up South Clear Creek, opening by an easy route the whole of Clear Creek county and the rich silver mines of Georgetown. A month later thirty-eight miles of the main broad-gauge line, leading from Golden north through Colorado's finest farm lands to Longmont, were in operation. During the months of May, June and July, 1877, the mountain line was extended along South Clear Creek to Georgetown—fourteen miles—tapping the very silver veins, and carrying needed supplies from the fertile valleys 5,000 feet below to the miner's door. While this work was going on in the depths of the mountains, the crowning achievement was inaugurated on the through line between Longmont and Cheyenne. Including the switches, eighty miles of track were here laid in sixty-seven days, and by the close of October, 1877, Colorado enjoyed her first independent through line, from the mountain cities to Omaha and the Missouri river.

The narrow-gauge extension from Black Hawk to Central, four miles, one of the finest pieces of railway engineering ever attempted, is also about completed, and will give this corporation 185 miles of splendidly built and equipped roadway. Extensions also in progress from Georgetown to the South Park silver mines, 78 miles; from Central to Caribou, 20 miles, and from Golden to Acequia, on the Denver & Rio Grande Railway, 16 miles, will assist in a large degree in making this railway the great drain and feeder of all the prominent mining and agricultural regions of Colorado.

The Only Route.—The Colorado Central Railway is the only route traversing the rich and populous agricultural districts of the state. It is the only line penetrating the immense gold and silver belt, and the only one tapping alike the great valley coal measures and mountain forests. By it the tourist is furnished the grandest mountain views at every mile of progress and is finally set down in the midst of the most rugged and beautiful cañon scenery, or within stone's throw of Colorado's most famous medicinal springs. Of Colorado's thirty counties the different branches of this railway penetrate six. These six counties, according to official reports, contain 75,000 people, or one-half of the entire population of the State. Their taxable wealth is $20,500,000—more than half the total valuation of the State—and in gold and silver, wheat and other products, these six counties contributed in 1877 $14,000,000 out of the total of $22,000,000 produced by the entire state. The wheat yield of four of these banner counties —Larimer, Boulder, Jefferson and Arapahoe—was 1,150,000 bushels, three-fourths of the production of the state, while the three counties of Boulder, Clear

Creek and Gilpin—tributary alone to the Colorado Central Railway—poured out an offering of $5,200,000 in gold, silver and coal, and thus supplied two-thirds of Colorado's mineral yield.

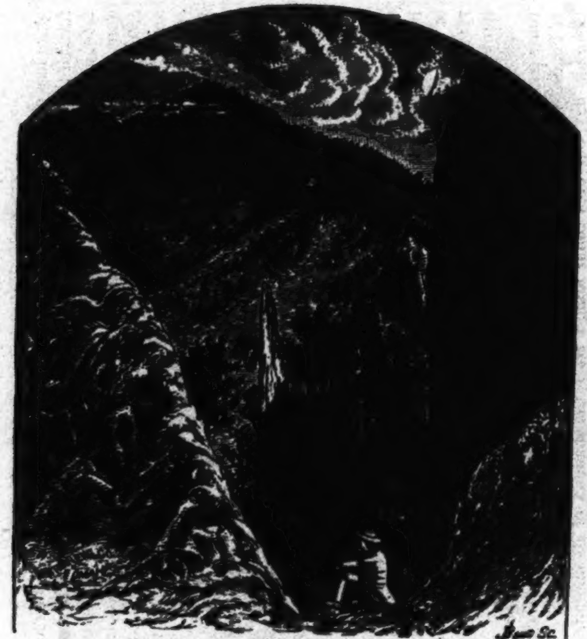
In brief, then, the Colorado Central Railway is prosperous, alone and unrivaled in its sphere because, first, it alone penetrates the most thickly populated and the most lavishly productive sections of a rich state; second, because it follows the greatest of all belts—the wheat belts and the belts of gold and silver; third, it is the great and only factor of exchange between the army of treasure-finders in the metal-ribbed mountains and the thousands of thrifty wheat and cattle-raisers in the fertile valleys; fourth, it bears the pleasure-seeker to natural attractions rivaling the Yosemite, and the invalid to the country's most invigorating atmosphere and most delicious and health-giving waters.

Distances.—Stations, distances and local fares southward from Cheyenne are as follows:

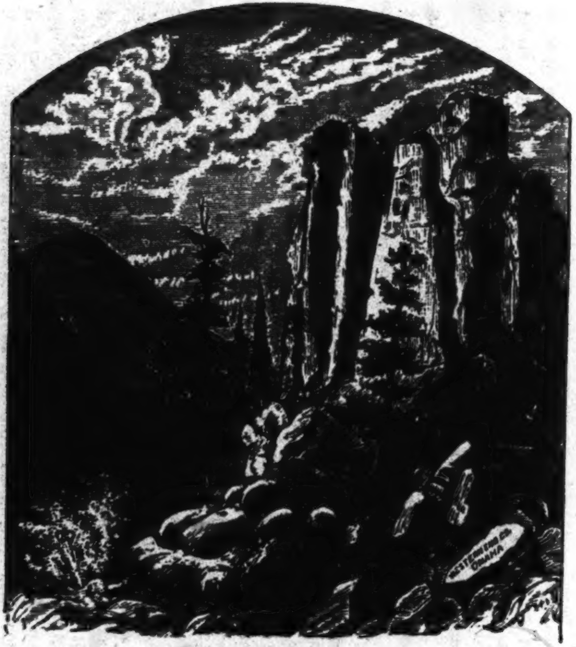
Cheyenne to	Miles.	Fare.
Colorado Junction	5	$0 65
Lone Tree	15	0 75
Round Butte	23	1 25
Bristol	32	1 75
Fort Collins	50	2 50
Loveland	61	3 10
Berthoud	69	3 25
Highland	73	3 35
Longmont	78	3 50
Ni Wot	84	3 60
Boulder	91	3 75
Lakeside	94	4 00
Davidson	98	4 15
Coal Creek	100	4 25
Church's	109	4 75
Ralston	115	5 00
Golden	117	5 25
Ahlstrom's	123	5 45
Arvada	124	5 50
Denver	132	6 00

At Colorado Junction, five miles west of Cheyenne, the road turns off squarely to the southward and maintains this general direction for over 100 miles. The ever-majestic mountains, from five to ten miles distant on the west, furnish an almost unending panorama in that direction, while on the east the great sheep and cattle ranges stretch to the horizon. Soon after leaving Colorado Junction we crossed some of Colorado's most famous antelope country, and by keeping a sharp lookout could see the contented animals browsing among the rounded hills at almost any time. Large herds of sheep and cattle also here find a favorite range. In crossing the ridges which border Lone Tree creek, some pretty heavy grades are made, but just as we caught a glimpse of the valley of the same name, the order was reversed. The descent is easily accomplished, however, by the skill of these latter-day railway builders. The road follows up the right side of the valley for a short distance, then, by a graceful curve, crosses the broad meadows and descends on the opposite side.

Lone Tree Valley boasts several of the best sheep, cattle and horse ranches to be found along the line. Several prominent business men of Cheyenne are engaged in this interest here. Cattle and horses are never fed, while sheep re-



RED ROCK SPIRES, NEAR BOULDER.



CASTLE ROCK, BOULDER CANON.

REACHED VIA COLORADO CENTRAL BRANCH OF THE UNION PACIFIC RAILWAY.

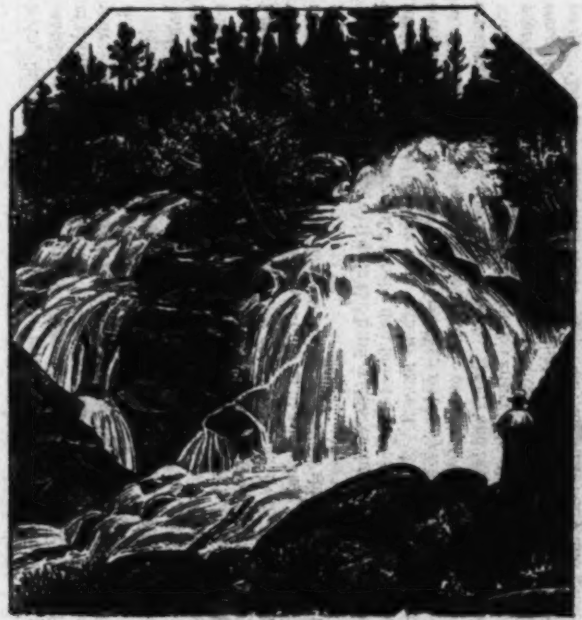
quire hay only at rare intervals in the winter. The neighboring bluffs not only furnish the necessary shelter for stock in winter, but are also the best source for food, as their abrupt sides are seldom covered with snow. Antelope are abundant among the surrounding hills, and wild ducks are always noticeable in the creek in spring and autumn. A few days' hunt could be pleasantly made from any of these ranches at less expense for board than one would incur in western cities.

Passing down the valley a few miles, the road again strikes into the grass-covered uplands so common between water courses along the foot-hills. The small way-stations, Round Butte and Bristol, are quickly passed, the former being named after a prominent land mark in its vicinity on the left.

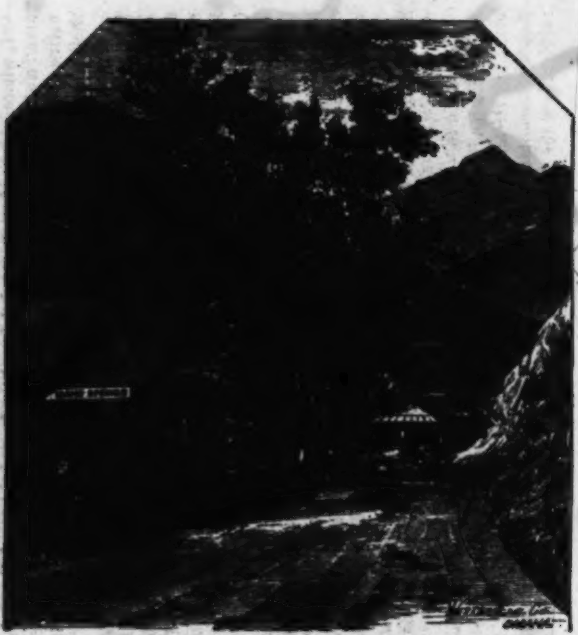
Duck Hunting.—Three or four miles south of Bristol, near the track, are several small lakes which are literally covered with wild geese and ducks during the fall and early winter months. Only a few local hunters have ever disturbed the water fowl here, and abundant success still awaits the sportsman. A farmer near by has thus far about monopolized the business by scattering heaps of wheat screenings at points along the shore, attracting immense flocks of the birds to certain localities, and then trapping them by an ingeniously arranged net. Fort Collins, five miles south, would be the proper rendezvous for hunters.

Cache la Poudre Valley.—One of the very finest rural landscapes of the route was presented as we emerged from the last range of hills bordering Cache la Poudre Valley on the north. Looking ten miles up the stream on a bright, Colorado day, our eyes could almost trace the shadows of its magnificent debouch from a wild gorge in the Rockies. Eastward, for thirty miles, to its junction with the South Platte, is one of the loveliest valleys in all the country. It is from five to ten miles wide, and from its rich golden wheat fields on either side, slopes down gradually to broad, level meadows, the tall, luxuriant grasses of these fringing a stream of remarkable purity and beauty. It is thickly studded with excellent farm buildings from the very foot of the mountains to its eastern extremity. Over 250,000 bushels of wheat were produced here in 1877. Twenty farmers, whose homesteads joined each other, reported an average of thirty-three bushels of wheat per acre, and the cases are numerous in which from forty to fifty bushels per acre were produced from favored fields. Reliable authority places the average yield throughout the entire valley at thirty bushels per acre. Extensive flouring mills in the valley work up a large portion of the wheat. Irrigation is necessary everywhere. Several very fine dairies are in operation near the line of the road, one of these producing a really "gilt-edge" quality of butter, and selling the same, by special contract, the year round at from thirty-five to forty cents per pound. Breeders of fine blooded sheep have also found congenial quarters among the adjacent hills. Wild lands, of which there are yet plenty, sell at from four to ten dollars per acre. Improved lands at from twenty to forty dollars. All produce finds a very ready sale at Cheyenne, Denver and in the mining and lumbering camps in the mountains.

The great pineries near the head of the stream, twenty miles distant, are contributing largely to the lumber supply of Denver, Cheyenne, the Government posts, and to the plains country for a distance of a hundred miles down the Platte. Two firms employ large gangs of men to cut and float the timber to mills located at Greeley, twenty-five miles down the valley. These firms



UPPER FALLS, NORTH BOULDER, COL.



CELEBRATED MINERAL BATHS, IDAHO SPRINGS, COL.

REACHED BY UNION PACIFIC RAILWAY, COLORADO CENTRAL BRANCH.

have, in connection with their saw mills, improved apparatus for planing, matching and dressing lumber in different ways, and also for the manufacture of shingles on a large scale. Over 1,500,000 feet of lumber are thus handled per year. Silver has been discovered below the logging camps, a short distance inside the mountains.

The Upper Cache la Poudre furnishes unexcelled trout fishing, deer and bear hunting, and superior scenic attractions. Residents from all of northern Colorado and southern Wyoming consider this a favorite resort, and during the summer months can be found at almost every turn, either camping out in the secluded glens or faring more bountifully at the many ranches among the foothills. Excellent home-cookery, with such items as fresh butter, milk, eggs, vegetables, and at some points mountain trout and clean beds, can be enjoyed at an average of $1.50 per day. Of camping-out we shall have more to say in future pages.

We made a five days' trip to the head waters of the Cache la Poudre, a little beyond the usual range of tourists, and found a region so wild and so delightful for its very solitude that we were loth to leave it. At many points dense pine forests would crowd the waters' edge, then suddenly a beautiful park or meadow would tempt us to a halt. Scarcely a mile of ascent was accomplished without crossing a swift, clear, spring-fed brook. Rivers and brooks were fairly swarming with trout, and among the mountains on either side elk and deer betrayed their presence almost hourly. Though the altitude is great — about 8,500 feet — some of the most tempting sites imaginable for ranches were found at many points. The growth of wild fruits — especially the strawberry and gooseberry — the flowers and grasses furnished endless surprise. At an elevation of 9,000 feet, where plenty of snow was yet found (in June) in some of the gulches, we found a stock ranch where a large herd of fat cattle attested the value of the native grasses. The owner informed us that he had taken little pains to feed or shelter the animals in winter, even at this altitude.

Fort Collins—Is located on the south-side of the Cache la Poudre, distant from Cheyenne 50 miles, and having an elevation above sea level of 4,815 feet. It is the county seat of Larimer county, and the principal trading point in the upper end of the valley. Population, 700. Has a bank, newspaper, two good hotels, extensive flouring mills, etc. Among the points of interest for the tourist are Rists Cache la Poudre and Moore Cañons, distant from six to ten miles. The Cache la Poudre here affords a superb water-power. Fort Collins is general headquarters for hunters and tourists. Duck-hunting is always good up or down the river; a single hunter of our acquaintance having killed nearly 300 of the mallard and other varieties during a two weeks' sojourn in the fall of 1877. The completion of the Colorado Central Railway has served to give the town and valley new life, and evidences of increased prosperity are already apparent in the numerous improvements in vogue. Among the railway company's improvements here will be noticed a large and handsome brick passenger and freight depot.

Water-tanks.—Passengers almost invariably note a peculiarity of the handsome brick and frame water-tanks which are found by the side of nearly every mountain stream en route. No pump, windmill or pipe is apparent, but the purest of mountain water pours into the tender at almost every halt. The rapid fall of the streams has been utilized by tapping them half a mile above the track, laying iron pipes beneath the ground and carrying the water along until sufficient "head" has been gained, when the pipe is turned upward into the tank on the principal of a syphon. The pipes are below the freezing line, and are therefore, always on duty, while the amount of water in the tank is regulated by a suitable "escape."

Rapid Settlement.—The advent of the railroad here, as elsewhere, has stimulated settlement and development to a marked degree. The rich and more conveniently irrigated valley lands were put under cultivation ten or a dozen years ago, while the warm, sandy uplands went begging. It has been demonstrated in the last few years that these uplands give the most reliable and wonderful yields of wheat, and during the past fall and winter they have been taken up or purchased on every hand. As we fairly left the valley of the Cache la Poudre, we found hundreds of these new homesteads, many of them plowed up and built upon during the first few months after the iron horse sounded his greeting. It is estimated that the acreage of wheat will be easily increased one-third during 1878, and that the yield in the four great wheat counties bordering the Colorado Central railway will not fall short of 1,600,000 bushels. Remembering that we were in the garden spot of Colorado, that nearly every acre of all that grand region will be rendered abundantly productive, and that not half the area has yet been utilized, we cannot but think of the wealth of possibility in store.

Loveland.—Distance from Cheyenne, 61 miles; altitude, about 4,800 feet. Loveland was founded during the building of the road, and was named in honor of the president of the company. It is located on the broad and level bench lands on the north side of Big Thompson river. Forty-five bushels of wheat per acre were produced last season on the ground now occupied by the fine brick depot, and from the plat since partially laid out as a town-site were harvested nearly 10,000 bushels, just as the graders of the Colorado Central were ready to sink their spades. "Uncle Davy Barnes," known all over Colorado as a pioneer, owned the 200 acres which produced this handsome yield, and his crop receipts for the season enabled him to build an extensive grist-mill on the river-bank near by. The town consists of several handsome brick business houses and a dozen lesser frame buildings, and draws its support from the thickly settled Big Thompson Valley. The pretty little village of St. Louis is located a mile below in the same valley. Big Thompson Valley has always been noted for the excellence of its crops, these embracing wheat, oats, barley, all hardy kinds of vegetables, and the small-eared varieties of corn. The principal features of valley, stream and soil, are identical with those of the Cache la Poudre.

Estes Park.—Rapidly growing into favor as a pleasure resort, and a nook now destined to leap to the front rank, is Estes Park, twenty-five miles west of Loveland, at the northeast base of Long's Peak. The first ten miles of the wagon road thither is first-class, and the remainder, with improvements to be put upon it early in 1878, will be one of the most charming mountain highways in the Rockies. Stages will commence regular trips early in the season. The Park is a beautiful little mountain-locked basin, 9,000 feet above the sea, its surface composed of meadows and groves, with here and there the prettiest trout brooks imaginable. "Camping out" can here be enjoyed to the utmost. As one visitor says it is "replete with grassy slopes, crystalline streams that course down from the melting snow-banks, broad zones of pine forests, towering heights of mountains and shady nooks. It is just such a resort as the sportsman delights in, or the tourist loves to frequent. The streams are filled with trout; the pines abound with noble game." The ascent of Long's Peak, 14,271 feet above the sea, can best be made from here, and is in itself an episode worth a visit to Colorado. The great gorge leading from the Park into the heart of the mountain, with vertical walls of 3,000 feet, is one of the awe-inspiring attractions.

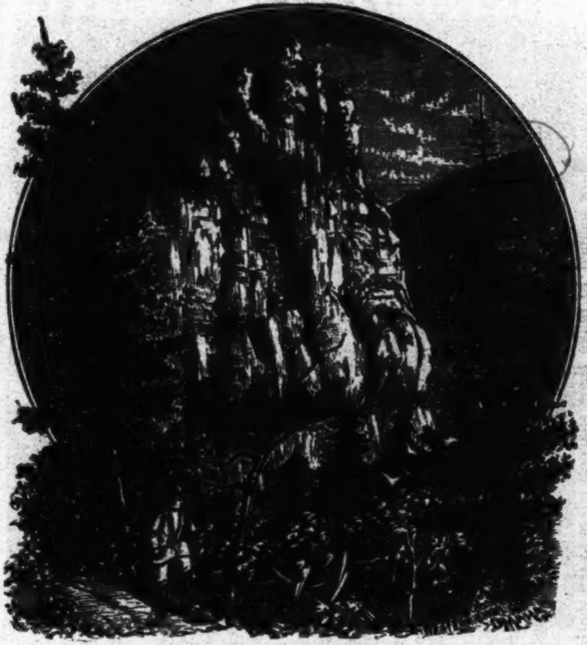
No wonder that haughty Englishman, the Earl of Dunraven, has been working so persistently to establish his title to twenty or thirty thousand of the best acres of Estes Park. With its battlements that would have crazed a Roman conqueror; its forest homes of the elk and deer; its streams that vie with Scotland's purest, and its thousand acre gardens of richest grasses and most delicate flowers — we say with all these and much more, can a British earl be blamed for coveting it? A European lord of the sixteenth century would have sacrificed half of his most trusty followers in the gaining of such magnificent possessions and thought his conquest cheap at that.

The McGregor House, an excellent mountain hostelry, is located in the Park, as well as lesser institutions of this class. Board can be obtained at from $1.50 to $2.50 per day. The only stage line heretofore entering the Park was from Longmont, but Loveland's accessibility, as already noted, will lead to increased facilities of entry from that point, in time for the travel of 1878.

Great Irrigating Enterprise.—As we journeyed southward from Loveland, we crossed the broad dividing plateau lying between the Big and Little Thompsons. This country is ranked among the best for farming in the State, but suffers from having no adequate irrigating facilities. A project is now well under way, however, which will remove this drawback. A canal twenty-five feet wide and three feet deep is to be constructed from a point on the Big Thompson, just inside the mountains, out over this divide, and thus throw thousands of productive acres of high lands open to settlement.

Berthoud.—Descending again we crossed Little Thompson valley at Berthoud, 69 miles on our way from the Union Pacific. The station is new, like all other features of the road, and was named in honor of Captain Berthoud, the well known chief engineer of the Colorado Central. The valley of the Little Thompson is less extensive than those of its neighboring streams and the attention of settlers has thus far been mainly given to stock raising. The breeding of blooded horses, cattle and sheep is the favorite branch of business there. The valley is always represented at the State Fair with fine roadsters, Shorthorn cattle and Merino sheep, and selections from these flocks and herds are being rapidly introduced into the best stock ranches of the west.

View of the Mountains.—We enjoyed an ever changing vista of the Rocky Mountains from the first, as our course was parallel with them and only from five to ten miles away. But while sweeping over the high divide between the Little Thompson and St. Vrain we were more than ever impressed with their majesty and grandeur. Long's Peak, well named the "American Matterhorn," seemed but a pleasant hour's walk away, while Gray's Peak and Pike's Peak—all nearly as high as Mt. Blanc—furnished fitting limit to the view 100 miles south and 75 miles west. We passed this point of glorious review late in the afternoon, when the setting sun tinged the long expanse of snowy crests with royal purple and the richest tints of carmine; even the rugged sides and depths



THE DOME, BOULDER CANON, COL.

GREEN LAKE, GEORGETOWN, COL.

REACHED VIA COLORADO CENTRAL BRANCH OF THE UNION PACIFIC RAILWAY.

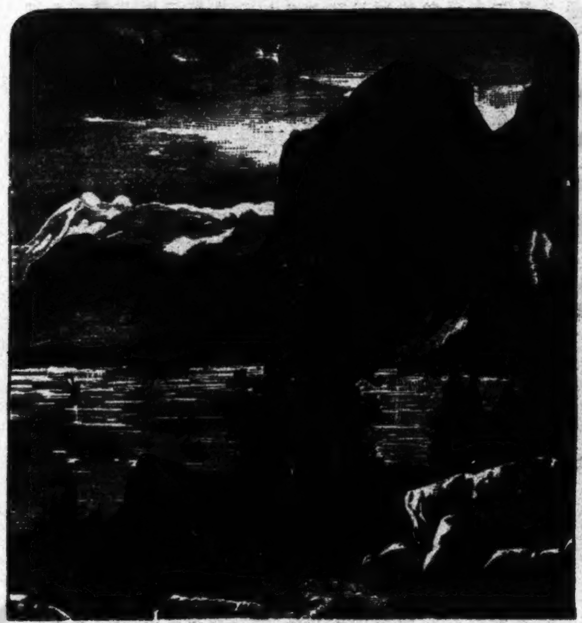
and verdure of the lower ranges were brought to our vision with indescribable beauty and clearness. Long after the day-god had dropped behind the curtain which veils a continent, the sky was touched with tints which art can never copy. Verily, a sunset in the Rocky Mountains can never be reproduced, either in art here or in nature elsewhere.

Longmont—78 miles, a thriving village of 700 inhabitants, in the beautiful St. Vrain Valley. Altitude, 4,957 feet. The name of the town was suggested by its majestic sentinel, Long's Peak, while the creek, whose crystal waters flow through every street, is inseparably connected in history with the veteran explorer and trader, Colonel St. Vrain. One of the Colonel's first fur-trading posts was Fort St. Vrain, located some twenty miles below and occupied more than forty years ago, when Fort Pierre, on the Missouri river, was the nearest similar refuge for the adventurous spirits of the Northwestern fur companies. Longmont boasts three flouring mills, two hotels, two weekly newspapers, a bank, and other necessary adjuncts to the well being of a thrifty out west town. Through the liberality of the railway managers and the enterprise of local dealers in produce the town has been rendered quite an important shipping point. Thousands of tons of hay and grain from St. Vrain and Left Hand valleys are being shipped to Denver and the mountain towns. Thirty thousand bushels of wheat were raised in the vicinity and marketed there the past season. There is a tri-weekly stage line from there to Estes Park. Distance, 32 miles; fare $5. Several lakes in the vicinity afford excellent duck-hunting and the upper St. Vrain, fifteen miles distant, is noted for its trout.

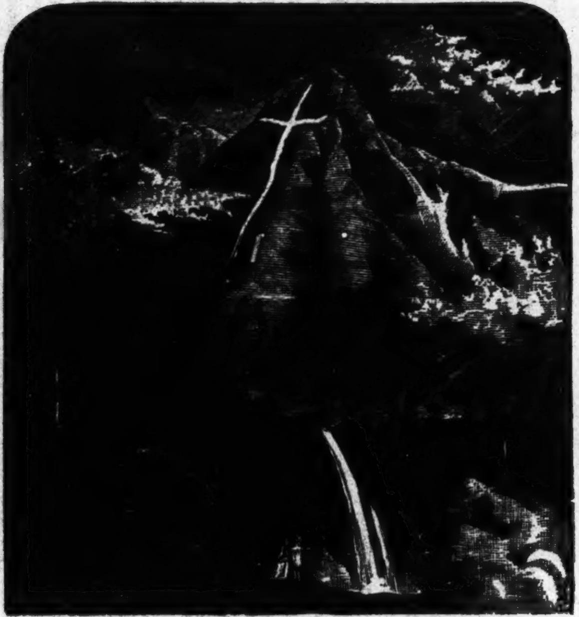
The mountains now seemed to make their sharpest curve to the southeast, and as we whirled across the valley of St. Vrain and Left Hand, toward Boulder, we pointed straight for them. Ni Wot, 84 miles, is a small station for the convenience of the thickly settled agricultural districts thereabouts. Seven miles more across this fertile continuation of Colorado's wheat granary, right under the shadow of the rocky cliffs and we were at

Boulder—91 miles; elevation, 5,536 feet; population 3,000. Boulder bids fair to rank third if not second in the list of Colorado's cities. The city now holds within its ambitious grasp the combined commerce of valley and mountain for many miles. Within a radius of twenty miles are the thickly settled farming regions of North and South Boulder creek, Left Hand and St. Vrain creeks; the great silver mines of Caribou and Nederland; the gold mines of Gold Hill, Sunshine, Tellurium, Salina, Magnolia, Jamestown, Sugar Loaf, Left Hand and other districts, and the Erie, Davidson, Marshall, Barber and half a dozen other coal deposits. Large deposits of iron ore of good grade are also found in sight of the city. These are all made thoroughly tributary to Boulder by a splendid system of wagon roads and stage lines provided by her sagacious citizens. Her grand cañon is simply a mountain gateway at the entrance of which all these interests concentrate.

Boulder has two railroads, with a third in course of construction, two telegraph lines, three good hotels, two newspapers, smelting works, two flouring mills, two national banks, a fine system of water works and the Colorado State University. The latter was completed two years ago at a cost of $40,000. Its dimensions are 97 × 112 feet and four stories high. It occupies a commanding position in full view of our road on an eminence south of the city. Unexcelled water power, abundance of fuel and other auxiliaries combine to render Boulder a splendid



GOLD LAKE, NEAR BOULDER, COL.



MOUNT OF THE HOLY CROSS, NEAR GEORGETOWN.

Reached via Colorado Central Branch of the Union Pacific Railway.

field for manufacturing enterprise. Already the principal fork of the creek is strung with mills, smelters, crushers and concentrating works far up into the mountains. But the supply of ores from the mineral belts above and of wheat from the fertile valleys below overflows these and is to a large extent carried to other points. Indicating the amount of travel and business here it may be stated that the two principal hotels registered 15,000 arrivals during 1877; one bank does an exchange business of $500,000 per annum; the post office issued and paid money orders amounting to over $50,000 and handled 500,000 messages in 1877. Annual fairs are held here in the interest of agriculture, stock-raising and kindred pursuits.

Boulder county is third on the list in the State in the amount of taxable wealth possessed. The total valuation for 1877 was $3,152,200; acres assessable, 110,151; wheat raised, 500,000 bushels; hay, 30,000 tons; average yield of wheat per acre, 30 bushels; average yield of each acre cultivated, $30; total value of farm crops for the year $1,800,000; estimated yield of mines, $800,000. The officials in making this report add that only one-third of the agricultural area of the county is utilized. The value of manufactured articles is placed at $500,000. Only claiming a population of 12,000 Boulder county, therefore, produces *an average of over $250 for every man, woman and child within her borders.* What community of producers in the east can make such a showing? Indicating social culture is the item that the citizens are taxed over $20,000 for musical instruments, and Boulder county is but a fair average of the others whose resources, progress and attractions are linked inseparably with the history and stimulating influence of the Colorado Central Railway.

The Mines.—Among the hundreds of rich mines which are tributary and send their treasure down through Boulder are the "American," gold, at Sunshine, 5 miles distant, yield in 1876 and 1877 $230,000; "John Jay," gold, on Jim creek, 18 miles distant, yield for the past twenty-two months $70,000; "Melvina," gold, 9 miles, yield $138,000 in twenty-eight months; "Ni Wot," gold, in Ward district, 25 miles, has turned out $500,000; "Caribou," silver, at Caribou, 22 miles, has produced nearly $1,000,000 and sold for $3,000,000 to German capitalists a few years ago; "No Name" and "Sherman," Caribou, silver, have produced $250,000. The ores of Boulder county mines are essentially "high grade" and yields of special lots have often been enormous. For instance, the "Melvina" ships small lots of ore nearly every month which yield from $5,000 to $14,000 per ton. The average yield of all the ore sold has been 28 cents per pound. The visitor can step into Church's sampling and crushing works at Boulder, almost any day, and see ore from the "Smuggler" which yields *five dollars per pound in gold.* Ore from the "John Jay" has averaged $1,000 per ton for the past six months. "American" ore assays all the way from $100 to $100,000 per ton, and one lot of five tons shipped to the Omaha Smelting Works yielded $27,500 to the owners of the mine.

The coal mines of Boulder county are of great extent and value, and have yielded over 100,000 tons the past year. The product is entirely bituminous, selling at Boulder at $2 to $3 per ton. Miners get from 75 cents to $1.15 per ton for mining.

Distances, Rates, Altitudes, etc.—Following are prominent points tributary to Boulder, with their altitudes above sea level, distance from the city and modes and expense of reaching them:

Boulder to	Miles.	Altitudes.	Conveyance.	Fare.
Boulder Falls, Boulder Cañon	10	6.800	Tri-weekly stage.	$1.50
Bear Cañon	4	5.600	*	....
Caribou	23	9,200	Tri-weekly stage.	3.50
Estes Park	35	8,000	Semi-weekly "	5.00
Gold Hill	10	7,100	Daily "	1.50
Gold Lake	15	8,000	*	....
Hot Springs, Middle Park	63	8,600	*	....
Springdale, Seltzer Springs	12	6.200	Tri-weekly stage.	2.00
Long's Peak	45	14,252	*	....
Magnolia	8	6.500	Daily "	1.25
Nederland	18	8.800	Tri-weekly "	3.00
Rollinsville	23	8,000	" "	3.50
Sunshine	5	6.500	Daily "	1.00
Sugar Loaf	10	8,500	" "	1.50
Salina	9	6,400	" "	1.40

Health and Pleasure Resorts.—Boulder and vicinity are prolific in these. Down the valley, within a radius of ten miles, are dozens of pretty lakes which are the favorite resort of geese, ducks and brant. Half a day's drive, over smooth valley roads, will take the sportsman to four or five of these, and land him back at his hotel door, with his game pouch full, if he is anything of an expert. Among the mountains back of the city, bear, deer and grouse abound, while high up the streams mountain trout are ever ready to tempt the angler. The principal mineral waters are at Springdale on James creek, 12 miles distant, at an altitude of 6,120 feet. The drive is one of the finest in Colorado, the location of the Springs a perfect little gem of loveliness in the midst of rich mines, and hotel accommodations are first-class at the moderate price of $2 per day. The water bubbles from the bottom of a large basin in the solid rock, is a lively, sparkling seltzer, highly recommended for scrofula, dyspeptic and blood disorders and of the following component parts:

	Grains.
Sulphate of soda	129.12
Carbonic of lime-bi-carbonate in the water	52.00
Chloride of sodium	5.96
Iodide and bromide of sodium	1.56
Bi-carbonate of soda	6.56
Bi-carbonate of iron	4.80
Bi-carbonate of magnesia	.80
Silicate of soda in the water	4.80
Weight of contents of one gallon	205.60

The drives are numbered by dozens and compass every phase of mountain and plainland scenery. Of course no visitor would miss Boulder Cañon, for that is to Colorado what the Yo-Semite is to California. A famous writer says: "We have read of Alpine scenery and of the Yosemite Valley, and have seen Niagara Falls, Delaware Water Gap and the passage of the Potomac through the Blue Ridge, and we pronounce them all as tame and common-place when compared with the scenery of this wonderful cañon." Entering the cañon just above the city the road for miles winds in and out, at times overhanging the stream, then crossing by primitive bridges and on and up the magnificent rocky opening. Here the walls running up majestically 2,000 feet, there a stretch of flower-decked roadside, below always the crystal stream, foaming and leaping from shelf to shelf in its hurry to reach the plain. The eye never tires of this infinite variety and blending of rocks and dell, refreshing foliage and inviting gorges. Ten miles up are the Falls, and no tourist should stop short of these. The water drops some forty or fifty feet from the shelving rock into a deep, narrow pool, presenting amid the giant buttresses on either side a charming sight. This ride can be made in half a day, if the visitor is hurried, or can be extended indefinitely up to the mining camps near Nederland and Caribou, and on over to Middle park, if desired, as an excellent mountain roadway is laid thither. Stages pass the Falls daily in summer; fare up and back, $2.50.

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*Private conveyance; carriage hire, single team, $5.00 per day; double, $8.00.

A fine two-days' ride is from Boulder to the Sunshine gold mines — through pine-covered foot-hills and along the sparkling Gold Run — 6 miles; to Gold Hill and Gold Lake — a grand climb among rich mines and to one of the prettiest sheets of water in the Rockies — 10 miles; to Camp Providence — location of the John Jay mine — 6 miles; to Jamestown, down James Creek, 4 miles; to Springdale — location of the celebrated Seltzer Springs and Big Blossom mine — 2 miles; return to Boulder over Buckingham's toll road, 14 miles; total, 42 miles. Springdale would be the best point to remain at over night. This jaunt covers the richest mining region, and the choicest mountain as well as valley views.

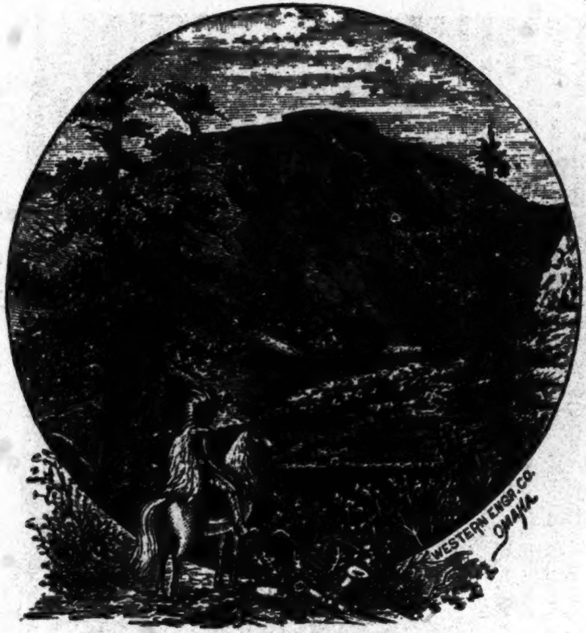
Or for parts of a day go to Sunshine, 6 miles; Gold Hill, 3; Salina, 3; return to Boulder through Boulder Cañon, 9; total, 21 miles. Another favorite route is from Boulder into Bear Cañon — a charming piece of scenery — to the mines of Magnolia District, 11 miles; return down through Boulder Cañon, 8 miles; total, 19.

Board at Boulder is $2 to $3 per day, and at all mountain towns adjacent will average $2 per day. Toll on mountain roads will average $2 per day, and, as before stated, outside rates on livery teams are $5 and $8. A first-class omnibus line transfers passengers from all trains.

Resuming the journey we passed Lakeside, 94 miles, named from a lake on the left of the road; Davidson, 98 miles, the principal coal mining town on the line; Coal Creek, 100 miles; Church's, 109; Ralston, 115; all simply sidings for the accommodation of local trade and the large freight traffic. Two miles west of Ralston are the Ralston Coal Mines. Unlike most other western coal deposits, these veins are vertical. In the two mines it is estimated that over 6,000,000 tons of a fair quality of soft coal are "in sight." A narrow gauge railway, connecting the mines with the Colorado Central, is in course of construction.

Golden. — One hundred and seventeen miles; altitude, 5,729 feet; is the county seat of Jefferson county, and claims a population of 3,000. Golden is already called the "Colorado Birmingham" from its favorite situation for manufacturing and its rapid progress in that line. The city lies just within the first foot-hills, 15 miles west of Denver. Springing from the mouth of one of the grandest of cañons, three-fourths of a mile above the city proper and flowing through the heart of the town, is Clear Creek. For the first mile of its course after leaving the mountains the stream falls some 75 feet, and as the volume of water exceeds that of any other stream in northern Colorado, except that of the Platte, it furnishes a degree of power that can scarcely be calculated, much less fully utilized.

Both sides of the stream are already strung with busy wheels. We first


WESTERN ENGR. CO.
OMAHA

THE SPHINX, NEAR CENTRAL CITY.

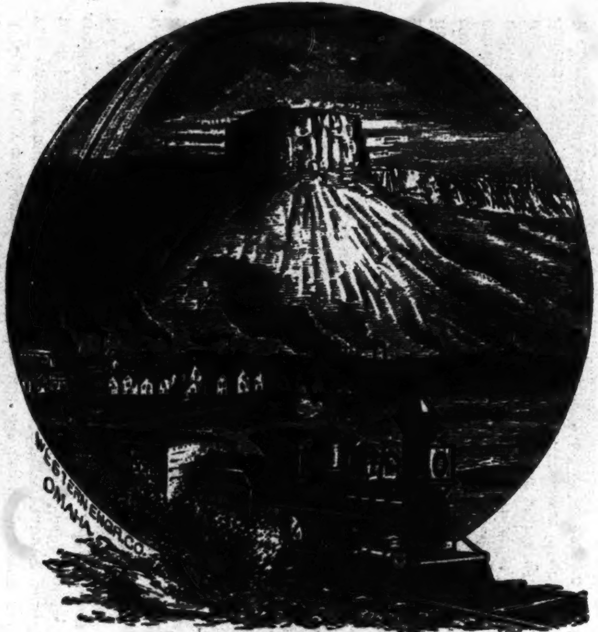

WESTERN ENGR. CO.
OMAHA

TABLE ROCK, GOLDEN CITY.

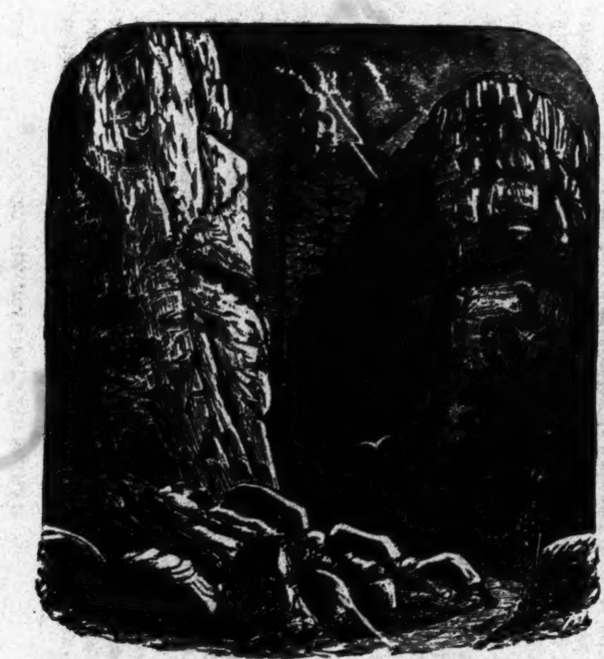
Reached via Colorado Central Branch of the Union Pacific Railway.

noticed the extensive shops of the Colorado Central Railway, which cover several acres of ground, and are being rapidly enlarged. Here passenger and freight cars are built, engines rebuilt, and every species of railroad repairing accomplished. A short distance south of these are the Golden Smelting Works, outgrowths of the great mining industry in the mountains above, which turned out $300,000 in gold and silver during 1877. Close at hand are works engaged in smelting copper from the valuable copper mines located 8 miles south of Golden, on Bear Creek. These works treat six tons of copper ore per day, obtaining therefrom 10 per cent of copper and an average of 30 ounces of silver per ton. Farther up the stream, in the heart of the city, are three large flouring mills, which turn out 30,000 sacks of flour per annum. The extensive buildings of the Golden Paper Works—the only institution of the kind between Omaha and Salt Lake City — are next noticed. The mills, run by water power, supply the newspapers of the State and show a business of $25,000 per year.

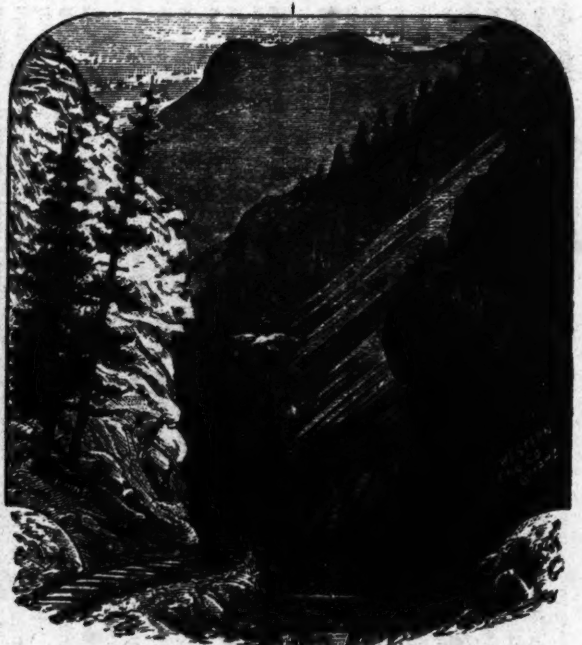
Two companies are engaged in manufacturing fire-brick, tile and pottery from the superior clay found near by. The Union Pacific and Kansas Pacific railways, the Rolling Mills at Laramie City, and Prof. Hill's Smelting Works, at Black Hawk, obtain their tiles, fire brick and dimension brick from this source, while miscellaneous orders are constantly received from points as far east as St. Louis, and west to the Pacific ocean. Half a million fire brick and one million red brick were produced during 1877. Fire brick sell at $50 per 1,000 for first quality, and $35 for second. The Trenton Smelting and Dressing Works is a very extensive establishment, in the upper part of the city, for the treatment of gold and silver ores; capital, $150,000; capacity, 10 tons per day. A New Jersey company is at the helm and has bright prospects before it, as thousands of tons of ore await treatment in the different mining camps from 20 to 40 miles above. Then there are planing mills, breweries, a foundry, etc., all combined, rendering Golden not only a very important and productive center, but an interesting one for the tourist as well.

Besides the copper mines already noted, there are within the limits of the town three coal banks, which are being placed in condition to easily yield 400 tons of coal per day, and splendid deposits of hematite of iron and magnetic iron in sight of the city. What has been said of Boulder in connection with the mining interests is especially applicable to Golden. The mines of Gilpin and Clear Creek counties, which have furnished three-fourths of all Colorado's gold and silver yield, have no other outlet or transfer point, and through imperative freaks of nature, they never can have. Clear Creek Cañon has proved a giant causeway, through which millions of treasure have been poured, as well as a mighty and wonderful chasm to be sought and admired by the travelers of two hemispheres.

The general offices of the Colorado Central Railway are located at Golden, and here the narrow gauge divisions branch off to the mountains. The main line continues its course onward to Denver, while, as a matter of convenience for southern travel and shipments, an additional narrow gauge division is being constructed south to Acequia, on the Denver & Rio Grande Railway, some 16 miles distant. Jarvis Hall, Colorado's most notable college for young men, is located here. The institution has numbered among its pupils residents of many different states and territories, and gains ground in popular favor every day. It is noticed that youth of the east, who from their delicate organism and tendency



THE GORGE AT DOME ROCK, BOULDER CANON.



ABOVE BEAVER BROOK, CLEAR CREEK CANON.

to disease, cannot, in those latitudes, endure the sedentary life necessary to the acquirement of an education, here prosecute their studies and gain a new lease of life at the same time. This atmosphere, itself a tonic, this almost perpetual sunshine, and these exhilarating walks in Nature's charming by-ways, tell the whole story. The State School of Mines is also located here.

Among the most pleasant drives are those to Bergen Park, a lovely little basin near Bear Creek Cañon, where trout, wild flowers and shaded picnic grounds are leading attractions, 8 miles; to Brookvale, well up in the mountains, where will be found good fishing and nice hotel accommodations, 12 miles; Cresswell, a ride abounding in beautiful valley and mountain landscapes, 6 miles; "Table Rock" is a prominent attraction in the immediate vicinity, rising nearly 1,000 feet above the town on the east.

INTO THE AMERICAN SWITZERLAND.

Clear Creek Cañon.—Of course one of our principal objects in visiting Colorado was to explore the wonders of Clear Creek Cañon and to dive into the mysteries of the gold and silver mines beyond. So at Golden we entered the neat and cosy little carriages of the three-feet gauge and commenced the really novel part of an interesting journey. Go with us, reader, on this exciting climb, and enjoy the richest two hours feast afforded on any railroad track in the world. The ascent commences at once, and soon we reach the narrow opening which constitutes the mouth of the cañon. Lofty foot-hills, covered with stunted pines and jutting rocks, crowd close on either side. In a moment these are lost in the mightiest mountain walls themselves. Across the stream and a hundred feet above it, clinging to the bare and vertical rocks by a net-work of clever timbering, is one of the flumes carrying fertility to the thirsty soils of the valley. We follow the foaming, leaping torrent constantly, for we are now between unbroken buttresses rising 2,000 feet above, and forbidding all thought of deviation.

Sometimes the stream almost eddies against our track; sometimes we look upon it far below, but still beating our stony parapet. Then we cross and recross until we are bewildered, and try in vain to believe ourselves going only toward the setting sun. Straight track is unknown. We are on a highway of short tangents of innumerable short curves. One instant an apparently solid wall runs to the clouds across our track, but in the next we are twisting sharply around or under it, our cars creaking with the strain. At times a path has been blasted from the mountain sides for our little railway, and the fallen fragments of granite have turned the stream or thrown its current into a hundred fantastic cataracts and eddies. Steadily we climb at the rate of 170 feet to the mile, ever-changing pictures of rarest beauty breaking upon the vision. The frowning rocks grow more terribly sublime, their height increasing and the chasm at times narrowing until the eye can scarcely scale the summits from the car window. The deep green foliage of the pine is rarely absent, the trees striking root in every cleft and in every grotto. This presents constant striking contrasts to the sombre gray and brown of the rocks. The roadway could not be more attractive or secure, for it is carved out of the solid rock, or else where it has been crowded into the stream the ties are imbedded in masonry. The bridges are built of iron; the station houses at places hang over the thundering stream by a system of architecture peculiarly their own.

We pass under hanging rock and can touch the wall on one side from the platform. "Mother Grundy," far up on the beetling crags, seems ready to gossip on this grand achievement of railway engineering, and Nature has chiseled her out enduringly. Eight miles from Golden is the romantic station of

Beaver Brook.—A mountain brooklet of the same name here finds access to the creek through a deep gorge and by a series of pretty cascades. Up to the left, on a cliff overlooking the track, is a dancing and picnic pavilion. It is reached by a long staircase from the other gorge, and is a favorite resort for Denver pleasure-seekers. On moonlight summer evenings the cañon walls are made to echo with music and laughter from this wild and curious eyrie. Fragrant flowers and beautiful ferns abound here, clinging to the crevices in the rocks and enlivening Beaver Gulch.

The Law of Exchange.—We pass a heavily loaded freight on its way to the mines and mills. Soon after we meet one equally heavily laden speeding to the valley by the simple power of gravitation. Let us see what they carry. The one ascending has among other items a car-load of salt, from Great Salt Lake, which came via the Union Pacific all this distance, and is now being taken to the great smelting works above, to perform its part in separating the metals from the ore. Another car bears hay from valley meadows to mountain stables. Mule-power is a grand lever up there, and can't be perpetuated without hay. Then there is an immense steam engine and mining machinery occupying another car. There will be thousands more before the ore channels are all developed, for mining is in its infancy here. Other cars are loaded with tons of flour, beef, groceries, vegetables and mining supplies of every nature. And this is only one train. Sometimes there are two or three a day, and this continues every day in the year, for mining communities *produce only gold and silver*. Everything else must go to them through this narrow and ever-beautiful pathway.

Coming down on the other train there was what? *Gold from Central! Silver from Georgetown!* Here was business on a specie basis, sure enough, and the simplicity of the transaction renders comment unnecessary.

A few miles above Beaver Brook the north and south forks of Clear Creek unite. One comes from the rich gold mining regions of Black Hawk and Central, the other from silver-crowned Georgetown. To penetrate and develop Colorado's two greatest mineral belts the railway has been extended up both of these cañons, past the mills and over and into the very mines themselves. "Forks Creek" is, therefore, quite an important junction, much freight business consolidating here, and no little passenger travel changing from one line to the other. We have taken the train for Central, and so pass up the north fork.

The Gulch Mines.—We are now in the very heart of the Rocky Mountains, where the giant barriers break away and assume new form and texture. Down below us are the gulches where, from 1859 to 1865, surged the feverish thousands, and where the yields of "dust" were reckoned in millions. Since that the gravel has been worked over many times, and it is estimated yet that almost as much gold has been lost as has ever been saved. As the ground becomes too "lean" for the average miner the Chinaman steps in and makes from one to three dollars per day. We can see large gangs of the Celestials at work, and have an opportunity of studying gulch mining practically.

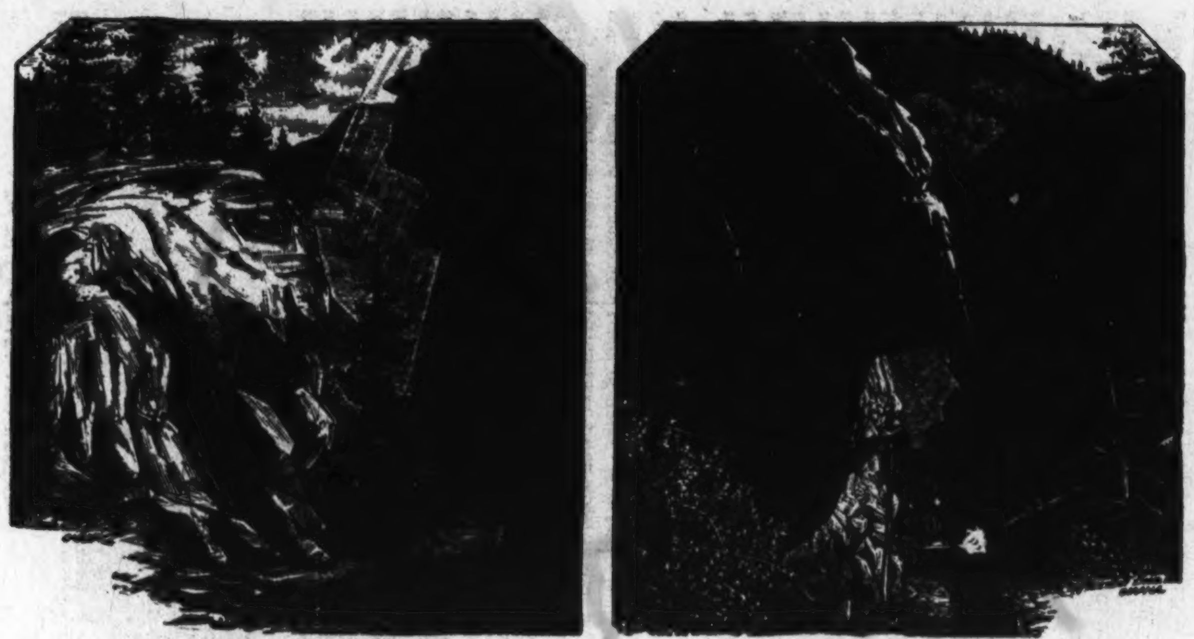
Smelting Works.—Just before entering Black Hawk we notice, on the right, the Boston and Colorado Smelting Works. These are among the most extensive in the United States, and will well repay half a day's examination. They were established to treat gold ore in 1867, and with improvements since made the buildings cover five acres of ground. A capital of nearly $1,000,000 is constantly employed. Seventeen furnaces are in constant operation, smelting sixty tons of ore daily, at an expense of over $500 per day for fuel and labor alone. The smelting of silver ores was not undertaken until in 1873. Since that period *eighty-five tons of pure silver* have been sent from the works. The product, in silver and gold, since the first, has been as follows:

1868	$ 270,886
1869	489,875
1870	652,329
1871	848,571
1872	909,954
1873	1,210,670
1874	1,638,877
1875	1,947,000
1876	1,995,000
1877	2,154,000
Total	$12,207,162

THE GREAT GOLD REGION.

Twenty-two hundred feet above our point of entrance at the cañon, and twenty-two miles from Golden, is Black Hawk. A mile farther up is Central, and for two miles up the gulch from the latter place is an almost unbroken line of mining towns and mining enterprises. The first sight of these mountain towns is not easily forgotten. Far up the giddy slopes hang cottages seemingly ready to topple one upon another. In the ravines below are busy, bustling streets, lined with quartz teams and all manner of vehicles. Frank Fosset, Esq., of Central, describes the scene in this manner: "A main thoroughfare three miles in length winds among these granite hills, whose interiors are honey-combed with shafts, levels and tunnels. Beside the muddy stream lofty chimneys of huge smelting works are always burning. Beyond are stamp mills, whose stamps thunder with never-ceasing industry. Night and day the same work goes on unintermittingly, week after week, year after year. Down in the depths, hundreds of feet from the sunlight, are other cities, less habitable but equally active. Here, by the dim candle light, hundreds of men wield the drill, pick and shovel, delving for the hidden wealth of centuries. These mines beneath the city help to swell the millions that steadily find their way into the channels of commerce."

Although one of the smallest counties, Gilpin (covering the mining region) has furnished half of the mineral yield of the state and is increasing its production yearly. The mineral belt here is about ten miles wide, extending into neighboring counties. The production in gold and silver, up to the present, has been as follows:



MOTHER GRUNDY, CLEAR CREEK CANON. HANGING ROCK. CLEAR CREEK CANON, COL.

On the Colorado Central Branch of the Union Pacific Railway.

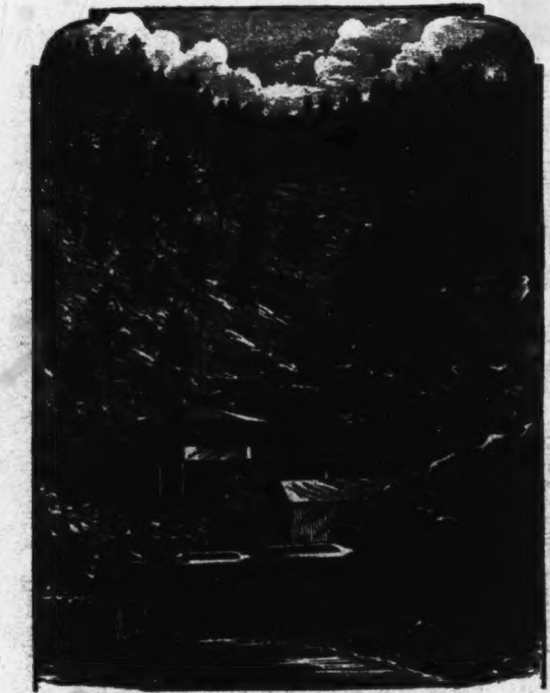
Previous to 1870	$25,000,000
For 1870	1,267,900
" 1871	1,378,100
" 1872	1,389,289
" 1873	1,440,502
" 1874	1,695,804
" 1875	2,010,391
" 1876	2,135,000
" 1877	2,300,000
Total for Gilpin county in 19 years	$38,616,986

Eighteen quartz mills are at present at work, turning out about $5,000 in gold daily. Among the principal mines are the "Gregory," depth 900 feet, total yield $9,000,000; "Bobtail," 650 feet, yield $4,000,000; "Gunnell," 650 feet, yield $2,500,000; "Burroughs," 1,000 feet, yield $1,500,000; "Kansas," 690 feet, yield $1,500,000. There are many others which have produced all the way from $500,000 to $1,000,000. In 1877 there were less than 1,500 men engaged in mining, milling and kindred pursuits, and their production amounted to $2,300,000, or over $1,500 for every man engaged. The prosperity has really just commenced. It is as enduring as the hills, and with the excellent facilities now afforded for transportation by the Colorado Central Railway must soon increase many fold. Mining has developed from chance and guess work into a grand science. The ore channels are as numerous as the veins on our hands. They were never richer, never in such trim to yield the royal metals as to-day.

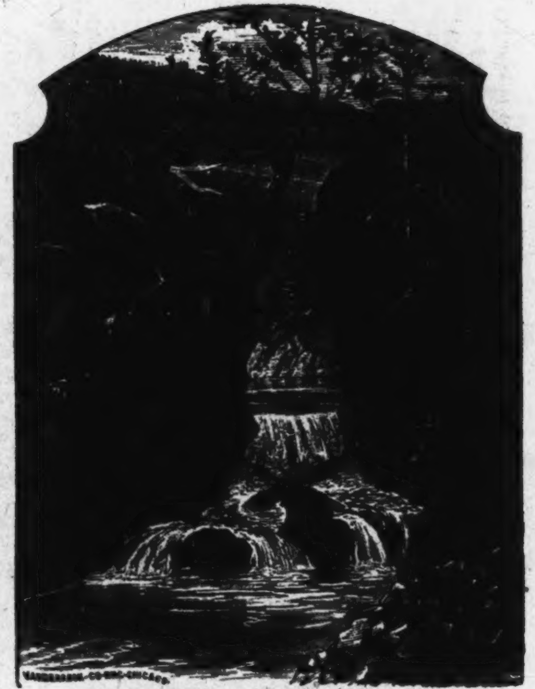
These towns combined have a population of about 5,000, Central being the county-seat and the acknowledged center of trade. It is solidly built of brick and stone, contains three banks, the Teller House—one of the finest hotels in Colorado—two daily newspapers and a fine institution of learning. Altitude, 8,380 feet.

Railroading Among the Mines.—Leaving Black Hawk, our track runs up the right side of the gulch among the mills and past the open mouths of mining tunnels. Reaching Bates Hill we turn quickly to the left, leap the two principal streets of the city on a splendid iron bridge, and by several "tangents," at a heavy grade, soon find ourselves 500 feet above the bustling streets and busy mills, pushing steadily across rich mineral veins for Central. We cross the famous Gregory, Briggs and Bobtail mines, which are now producing $50,000 per month in gold. We have only a mile and a half of actual distance to make, but travel *four* miles in order to surmount the wonderful grade. Clinging to the rugged sides of Mammoth Hill, overlooking the entire gulch, we have a view of snowy peaks, pine-covered mountains, mining enterprises and cities which leaves a life-time impress. James Peak, with its glittering summit of snow and ice, stands a fitting sentinel over all. From Central the road is to be extended at once to the silver mines of Caribou, eighteen miles distant. This extension will pass through some heavy forest and along the best mineral veins. The forest is quite an item, as timber is a great desideratum in mining, and is very scarce at these points. Indicating the present business of the road is the item that about 80,000 tons of freight are received by it at Black Hawk annually.

Points for the Tourist.—A week can always be spent profitably and pleasantly among the mines and mills. To learn how the ore is mined and how



BEAVER BROOK, CLEAR CREEK CANON.



"DEVIL'S GATE," NEAR GEORGETOWN, COL.

REACHED VIA COLORADO CENTRAL BRANCH OF THE UNION PACIFIC RAILWAY.

the gold is separated from it, are the first items thought of. Then ride out to James and Buel Peaks, ten miles, where views of half of Colorado can be obtained, and where the prettiest lakes lie high up among the summits, with their settings of gigantic walls and towering pines. Bellevue and Bald Mountains, 2⅓ and 1⅓ miles, respectively, are admired localities, and can easily be visited together in half a day. The shortest trail to Hot Springs, Middle Park, is from Central via James Peak, distance 44 miles. First-class hotels at Central, $4 per day; carriage hire, $8 to $12.

Instead of returning to the Forks of the Creek and going from thence up to Idaho Springs and Georgetown by rail, we took a carriage through the noted Virginia cañon to Idaho, 6 miles. En route are fine views of the snowy range, and the trip down Virginia cañon is one of the most enjoyable on the line. Much of the descent is at the rate of 600 feet to the mile, but the roadway is everywhere in excellent trim.

Idaho Springs.—A lovely watering place in the valley of South Clear Creek, 34 miles from Denver by rail. Elevation, 7,800 feet. The village contains some 500 inhabitants, whose principal occupation is mining; the gulches here still yielding abundantly, and a number of good quartz mines being vigorously worked. The locality is not only greatly favored as a summer resort, but captivates many to prolonged winter sojourns. The delightful coolness of summer nights is always noted, and the clear, sunny days of winter woo visitors to the open air almost constantly. The valley is here sheltered by several very high and noted landmarks, the "Old Chief," "Squaw" and "Papoose" being among the number, and lifting their heads from 10,000 to 11,000 feet above the sea. The famous Soda Springs, however, are the grand attraction. There are eight of these, ranging in temperature from 60 to 110 degrees. Two large swimming baths, and numerous smaller apartments for hot and cold shower baths are at hand, with such convenient features as dressing rooms, waiting rooms, etc. Following is an analysis of these waters, the constituents being from one gallon:

Carbonate of Soda	30.80
Carbonate of Lime	9.52
Carbonate of Magnesia	2.88
Carbonate of Iron	4.12
Sulphate of Soda	29.36
Sulphate of Magnesia	18.72
Sulphate of Lime	3.44
Chloride of Sodium	4.16
Chlorides of Calcium and Magnesium, of each a trace.	
Silicate of Soda	4.08
Grains	107.08

Cold mineral springs are also found near by, the waters of one being especially effervescent and sparkling. Soda, iron and sulphur seem to be present in these. The medicinal properties of all the Idaho Springs waters are very marked. The sensation produced by a plunge in the great swimming baths is simply delightful, and for rheumatic affections has proved wonderfully efficacious.

There are numerous resorts close at hand where all can spend hours or months of pleasure. Pleasant drives lead to half a dozen picturesque mining camps; winding trails extend to the summits of adjacent mountains, and secluded highways for the pedestrian penetrate nature's wildest nooks. The Beebee House is a good, comfortable mountain hotel; transient rates, $3 per day. Livery is abundant at same rates as at Central. Good deer hunting in the mountains within half a day's ride. Trout-fishing in Fall river, 3 miles.

An additional commodious and well-appointed hotel is soon to be erected. A valuable feature of this will be the introduction of the hot soda water direct from the springs into a large proportion of the rooms by means of iron pipes. Facilities for hot and cold water bathing will be supplied separately from each chamber, and the invalid can enjoy all the comforts of an elegant home, together with the finest mineral baths, without leaving his rooms. An exhilarating atmosphere and healing waters; in the midst of noble pines and enchanting scenery; fishing, hunting, riding and exploring; an ever-fruitful field for the exercise of the mind in the mining, milling and railway enterprises — these, together with an easy accessibility, are a few of the attributes which in the future will render Idaho Springs one of the most popular of Rocky mountain resorts.

"*Old Man of the Mountains.*"—Again taking passage on the narrow gauge, and speeding up the valley to Fall river, 2½ miles, we passed at the very base of this noted landmark, and all were out for a view. It consists of an excellent profile of a man's head, chiseled by nature out of the rocks, four or five hundred feet above the track. Across the creek is the Fall River House, also quite a stopping place for pleasure travel. Fall river enters Clear creek just below, bearing in its sparkling waters a suggestion of the speckled beauties to be found a mile or two above.

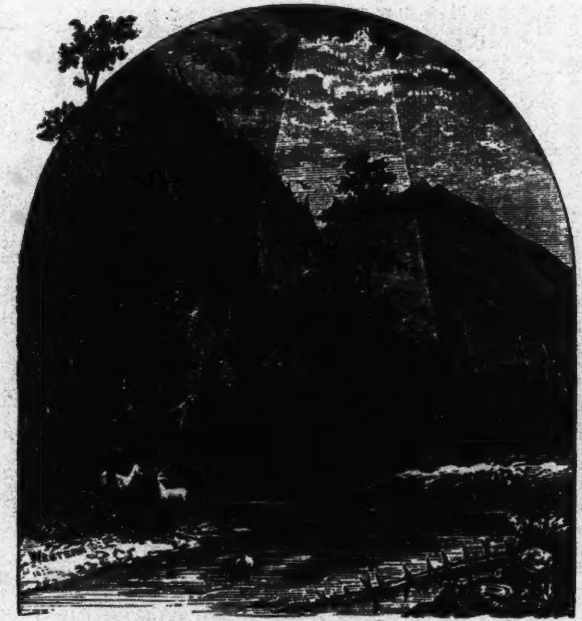
Every foot of the road continued to present some new and interesting feature, some glorious and unrivaled view of snowy peak, or nearer glimpse of rushing creek and shaded valley. We kept close to the water's edge, and passed some pretty falls of man's construction, and occasionally saw the miners at work among the golden sands. Quartz mining enterprises are not wanting. We had entered the "silver belt," however, and found the mountains much more precipitous than in the gold region — hence more interesting to the seeker of wonders.

Georgetown—well named the "Silver Queen"—is distant from Denver 52 miles, close under the "Snowy Range," at an altitude of 8,412 feet. The valley here is nearly a mile wide, reasonably level, and the mountains rise up rugged and abrupt on three sides to a height of nearly 2,000 feet. Two branches of the stream come leaping down through the streets from either side, and the visitor may expect to see the handsomest city in the Rockies—none *could* be more eligibly located and few have made better use of natural charms. The city has a population of 5,000—all directly or indirectly interested in mining. You see silver bricks at the banks and smelters, you stumble over huge masses of silver ore at your hotel and on the street corners, and go where you will the windows and counters are lined with specimens of the glittering mineral. The inhabitants are fairly charged with mining enthusiasm and confidence in their town. If you are incredulous at their kindly offered information why *there are the bricks!* Georgetown has enjoyed a marvelous degree of prosperity. The splendid business houses, schools, residences, water works and smelting works are living monuments. The town is literally surrounded with mountains of silver ore, and much of it is of such grade that it has been shipped to Europe for treatment and the bullion returned to America with handsome margin for profit. The railway era has added new faith and prosperity. Ores are now shipped in great quantity to Black Hawk, Denver, Golden, Omaha and across the ocean, which a few years ago were valueless on account of the great cost of transportation. The silver belt here is about 12 miles wide by 20 long.

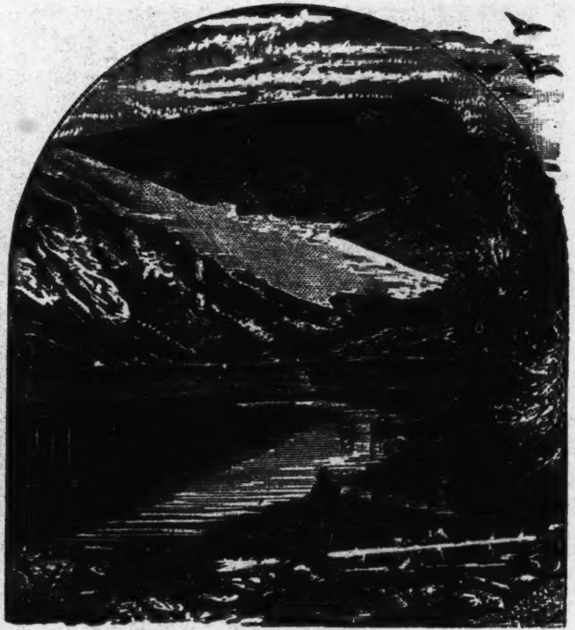
According to Raymond and other reliable authorities, the gold and silver mines of this county (Clear Creek) have produced $14,000,000. The "Dives Pelican" mine has been the largest producer, having yielded $3,000,000. Its largest yield for one week was $65,000 in 1874. The "Terrible" has produced its hundreds of thousands, and among others well worth a visit are the "Colorado Central," "East Roe" and "Equator." All are high up the mountain sides but will well repay the climb.

Neighborhood Attractions.—Georgetown is unrivaled for the multiplicity, beauty and interest of attractions for the visitor. Green Lake, 2½ miles, is a sheet possessing rare charms for all. It is half a mile long by a quarter wide, hemmed in by high mountains and pine forests. Fine boats are furnished and in a row across the water the visitor can see the wonderful forest of petrified trees standing upright many feet beneath the surface, with thousands of trout swimming among the branches. The lake has been stocked with 40,000 California salmon, 20,000 trout and 200,000 fish of other varieties. Thousands of California salmon are now in the hatching houses on the lake shore. Accommodations are the best to be had in the mountains. An excellent carriage road leads to Snake River Pass, 9 miles, where the novelty of resting one foot upon the Atlantic and the other on the Pacific Slope, and of picking flowers with one hand and gathering snow with the other can be enjoyed. The view of the Mount of the Holy Cross, and a wide compass of mountain peaks is from here indescribably grand. Only fifteen minutes walk from the city are those wonders, the Devil's Gate and Bridal Veil Falls. Empire, a pretty gold mining camp where $2,000,000 have been produced, 4 miles; Brownsville, 3; Silver Plume, 2; Summit of Gray's Peak, 15; Chicago Lakes, 8, are among other especially interesting rides and drives. Good saddle ponies at $2 to $3 per day, and teams at $8 to $12. In the city the visitor should not fail to visit the banks, smelting works, and the "Miners Assay Office," where the finest mineral specimens and bullion are always on exhibition and the practical knowledge of the reduction of ores can be obtained. There are two good hotels, the Barton and American, the Barton being a model from parlor to kitchen. Board, $3 per day.

From here the railway is in process of construction to Fair Play, South Park, 73 miles, taking in the rich silver mining camps of Silver Plume, Brownsville, Hall Valley, etc. and penetrating heavy forests of pine. It will be emphatically the "silver belt railway," as it crosses the greatest silver veins of Colorado, often passing the very mouths of the tunnels and winding among the ore piles. Its windings far up the mountains in view of Georgetown, through that wonderful gash, the Devil's Gate, and across the summits, develop the most remakable of all railway engineering feats and will place the "Silver Belt Route" ahead of any in the land for interest to the tourist. The rapidly increasing yield of the South Park mines and large stock and lumber interests are items of coveted trade in that direction.



ON GRAND RIVER, MIDDLE PARK, COL.



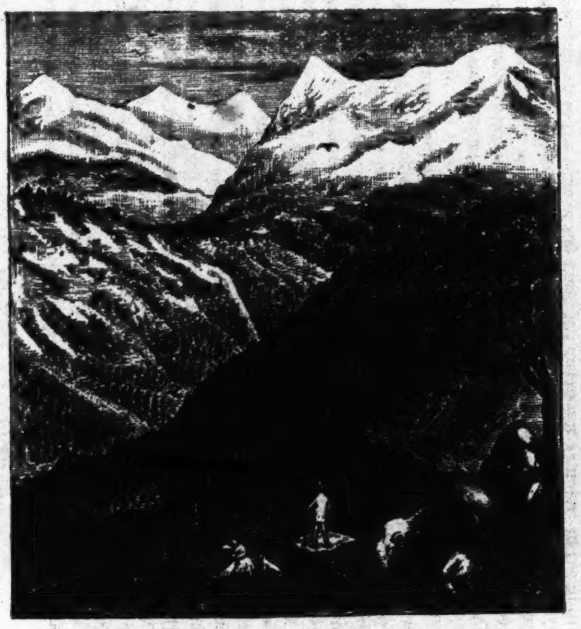
MARY'S LAKE, NEAR JAMES PEAK, COL.

Reached via Union Pacific Railway, Colorado Central Branch.

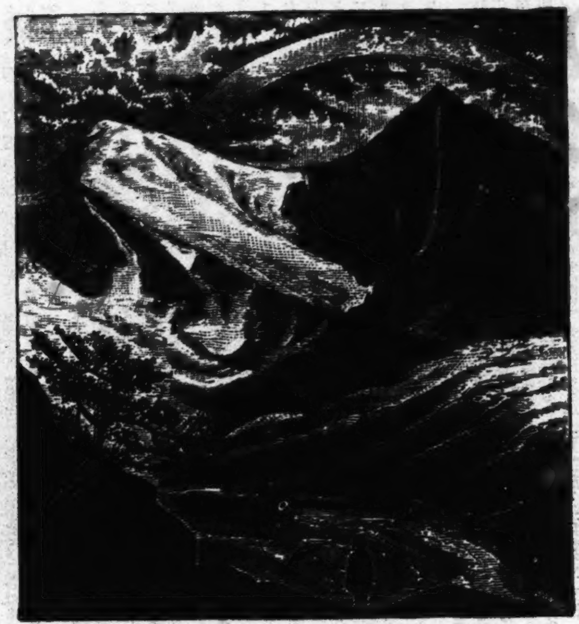
Middle Park.—Of the large parks this is by far the finest in all points which constitute attractions for the health and pleasure-seekers or the sportsman, and offers many charms and advantages for those seeking homes. Its accessibility, the wildness, singularity and sublimity of its scenery; the coolness, salubrity and invigorating influences of its climate and its inviting baths; its dozens of rivers and lakes, alive with gamy trout, and its deep solitudes of mountain and forest, only broken as haunts for noble game—these alone render it a mecca to be eagerly sought, saying nothing of its myriad charms which could be elaborated in appropriate space. We went from Georgetown to Hot Springs, 46 miles, easily in a day; took a delightful plunge in the Hot Sulphur baths, had trout and venison for supper and early next morning rode to the summit of Mount Bross, near by, to get a thorough idea of the Park and surroundings. Clearly distinguishable on every side, through the transparent atmosphere, we could see the almost perfect girdle of the Park—the snowy range. Rolled up high against this are pine-covered mountains in every conceivable attitude; then in the wonderful circular basin known as the "Park," which has an area of 4,000 square miles, are the grass covered lesser elevations, which would pass for mountains almost anywhere. Nestling among these hills are the hundreds of parks in miniature, nearly every one of which sends its crystal brook toward the sea. Down through the centre of this great basin comes the sparkling, swift-flowing Grand, its course marked by as fair a valley as human eyes ever beheld, and its sheltering bluffs rising over as cosy and thrifty frontier homes as one could find anywhere. Tributary to it are a dozen streams which may well be ranked as rivers. Of course, standing like ice-clad watch-towers over this lovely scene are such mighty peaks as Mount Lincoln, Long's Peak, Gray's Peak, James Peak and others. The Park has an average elevation of 7,800 feet.

The Springs consist of a dozen or more boiling, hissing, sulphur-scented fountains spurting from the crevices of an immense rock overlooking the river and at the base of Mount Bross. The waters of several of the largest fall in one great sheet over the edge into a natural basin and form a delightful bath. The temperature is about 110°. Commodious bath houses are furnished, and hotel accommodations are very fair at $2 to $3 per day. Dr. Stedman, a noted physician of the west, has this to say of Hot Springs and vicinity: "For chronic cases, where it is desired to combine change of scene with medical treatment, few places in summer combine more natural attractions than the vicinity of these springs can boast. And with its magnificent river (rightly named the 'Grand'), its wooded and grassy slopes, surrounded by alternate forest-crowned hills, and abrupt, savage and rocky cliffs, while beyond and encircling all, rise the rough outlines of the 'snowy-range,' one could easily imagine that here might be the place where the waters should gush forth which 'should be for the healing of the nations.'"

Trout-fishing is good almost everywhere, especially so in the upper Grand and at Grand Lake, 25 miles distant. Grand Lake is a sheet of water of unknown depth, about two miles square, environed in frowning cliffs and fairly thronged with trout. Elk, deer, mountain sheep, bear and antelope abound, as do water-fowl, sage hens and grouse, almost everywhere. At the southeastern rim of the Park, near the lively gulch mining town of Breckenridge, bear hunting is exceptionally good. No matter what particular species one may fancy he



SNOWY RANGE, NEAR CENTRAL, COL.



GRAY'S PEAK, NEAR GEORGETOWN, COL.

REACHED VIA UNION PACIFIC RAILWAY, COLORADO CENTRAL BRANCH.

can always be accommodated there. He can meet the kindly "cinnamon" by twilight alone, or he can have half a dozen for company; he can always interview one solitary "grizzly" on that lonely path down to the village slaughter house, or, by going a roundabout course, can divide his attention among four or five when he gets there; should he desire one of the large "black" kind, so the saying goes among local hunters, he has only to lariat a tolerably small sized pony with a two-inch cable on a nice little patch of grass in the bottom of a certain gulch just above town; he may proceed to take his morning ride any time after midnight and he will find a fair representative of the black species sitting where his pony ought to be and endeavoring to spit out that two-inch cable. We indiscreetly expressed some curiosity about the bear family in the sitting room of Judge Silverthorne's popular Breckenridge hostelry one evening, and inside of ten minutes were fairly overwhelmed with invitations to attend a black bear re-union up in Negro gulch, a grizzly promenade down Zig-zag Hollow or a cinnamon breakdown over on Buffalo Flat. Breckenridge is 60 miles from Hot Springs by a good wagon road. Lakes near by abound in trout of prodigious size and appetite. Tip-top hotel and livery accommodations. Board $2 per day.

Curiosity hunters in the Park are rewarded by the existence in great plenty of agates, petrifactions, amethysts, fossils, chalcedony, etc. The luxuriant grasses are being utilized by fine herds of cattle. The owners are always hospitable and in different localities are prepared to entertain guests royally. From Georgetown to the edge of the Park, the distance is 21 miles; to the Springs, 46 miles; Tri-weekly stages; fare from Georgetown to the Springs, $8. Good roads track the Park in most directions. Saddle ponies can be obtained at the Springs at $1.50 to $2 per day. Board can be obtained in all desirable localities at from $2 to $3 per day.

Clear Creek Cañon by Moonlight.—Returning to Georgetown we had the choice of two regular trains per day for Denver. The moon was at its full, and by taking the evening train we were afforded the most sublime ride of our lives. Imagine the effect of the pale rays of the night queen as we twisted and doubled upon our course in the depths of that mighty chasm. Sometimes the rushing waters and cañon shades were fairly flooded with the almost vertical beams; suddenly darkness was deeper than before because of our abrupt change of course under the giant battlements. Now our bands of steel gleamed like silver; in an instant all was blackness and confusion. The walls, the fissures, the noisy cataract below, the stars and pine-clad summits above seemed to dance like the figures of the kaleidoscope, so like magic was it all. Travel "by moon" here, reader, if you can, and never miss its silvery halo on either the up or down trip through Clear Creek cañon. Emerging from the Rockies at Golden, we again changed for the coaches of the main broad-gauge line, and descending eastward through the fertile Clear Creek valley soon found ourselves at the metropolis.

Denver.—Capital and commercial center of Colorado, and sooner or later the grand objective point of nine-tenths of all who visit the state. Distance from Omaha, 648 miles; altitude, 5,244 feet. The city is built on both sides of the South Platte river, fourteen miles from the foothills, commanding one of the finest panoramas of snowy range and timbered mountains in the entire west. Northward 75 miles is Long's Peak; southward the same distance, and always in perfect view, is Pike's Peak. The view extends still beyond these, being only lost in the sombre outlines of the Black Hills, 125 miles northward, and in the Sangre de Cristo mountains, 150 miles to the south. This gives clear, unbroken sweep for the vision of nearly 300 miles, and one that furnishes an endless variety of mountain grouping, from the dark green and purple-tinged pine-lands of the lower ranges to the snowy, silvery summits of a hundred mighty peaks. Denver is a solidly built, well shaded city of 23,000 people. Evidences of refinement, wealth and remarkable enterprise greet the visitor on every hand. Long streets and avenues, thickly lined with elegant residences, beautiful shade trees, and tasty yards and gardens, stretch out in every direction from the well-built business centers. It is essentially a city of fine churches and schools, of elaborate public improvements and great private enterprises, of high social culture and an enduring thrift. Attesting its claims on health and pleasure seekers are the facts that nearly one-half of the population are reconstructed invalids and that it is the resort of thousands of America's most prominent divines, law-makers and capitalists and of the greatest travelers and nobility of Europe. P. T. Barnum has remarked in a lecture, "Why, Coloradoans are the most disappointed people I ever saw. Two-thirds of them come here to die and they *can't do it*." John Russell Young has long since said, "Denver and Paris are the two cities with which I fell in love at first sight, and in which I have a constant yearning some time or other to reside. I have seen no prettier town in Europe or America than your same Denver." The number of arrivals at Denver hotels in 1877 was 121,000.

The growth has been one of great rapidity. Since the first railroad was completed in 1870 the population has increased from 4,000 to 23,000. Six lines of railroad, the Kansas Pacific, Colorado Central, Denver and Rio Grande, Denver Pacific, Denver, South Park and Pacific, and Denver and Boulder Valley, have been completed in these seven years, giving her direct routes to the east, draining all the valuable farming regions of the state and penetrating the heart of the richest mining centers. Her trade has reached $20,000,000 per annum. In 1877 her eight banking institutions sold exchange to the amount of $18,000,000 and cared for nearly $2,500,000 of average deposits. Insurance carried, $6,000,000; shipments of cattle, 1877, 8,140 head; value of improvements made, same year, $850,000; manufactured articles, $2,000,000; total amount received in post-office money-order business, $555,000; these items will convey something of an idea of the thrift and importance of the city, commercially.

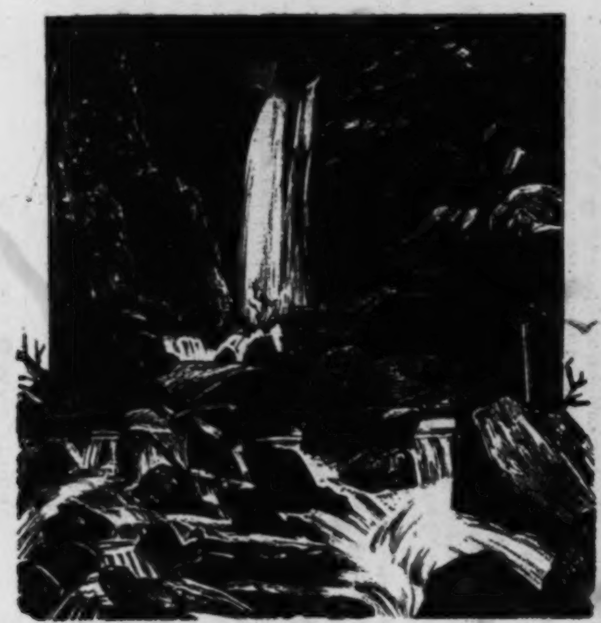
In walks about Denver, there will be especially noticed the splendid Holly water works, which send pure mountain water from the Platte all over the city at the rate of a million gallons per day; three or four lines of street railway, gas works, five fine public school buildings and a widely known ladies' seminary, twenty churches, United States branch mint, half a dozen good hotels, etc. Four daily papers, such as cities twice the size east could not boast, are published here. These are the pioneer *Rocky Mountain News*, Denver *Tribune*, *Times* and *Democrat*. In brief, Denver is the metropolis of one thousand miles of plain and mountain, the entrepot of the great Rocky Mountain gold and silver mining region, of the stock and agricultural interests of a country larger than all of the states east of Ohio combined, and the sanitarium of admiring thousands.

Drives over unexcelled roads radiate in all directions, each having favorite points of view of mountain, city and plain. In the immediate neighborhood the Boulevards, Central Park, Swansea Smelting Works, Villa Park, Sloan's Lake, and the Denver trout ponds, should not be overlooked. Within a dozen miles are a variety of attractions, such as Bear Creek Canyon, Bergen Park, Mt. Vernon, Morrison Soda Springs, Soda Lakes and Church's Lake. Good duck hunting in the lakes, and trout-fishing near Morrison, in Bergen Park, and near Mt. Vernon. Hotel rates, $2.50 to $4.00 per day; excellent boarding houses furnish accommodations at from $7 to $10 per week. Venison, buffalo, antelope and bear meat, with mountain grouse and trout, are common items of hotel *cuisine*. Carriage hire, $4 to $7 per day; good saddle ponies can be obtained at $2 per day. Denver has really the finest omnibus and transfer line in the western country; uniform fares, including baggage, 50 cents. Street car fares, five cents. The Colorado Central and other railways make special excursion rates for tourists, in large or small parties, to all mountain resorts. Rents for cottages are from $20 to $35 per month. Expenses of living about 15 per cent higher than east of the Mississippi.

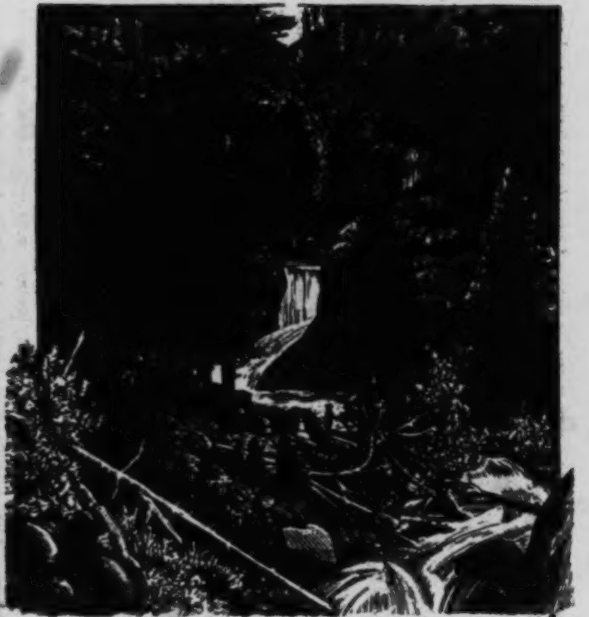
SOUTHERN COLORADO AND NEW MEXICO.

Colorado Springs and Manitou.—Prominent among the Union Pacific Railway connections and feeders in Colorado is the Denver and Rio Grande Railway (narrow gauge), leading directly southward from Denver 220 miles to the borders of New Mexico and the San Juan country, and controlling the immense freight and passenger traffic of that region. Lying near the base of Pike's Peak and 75 miles south of Denver, are Colorado Springs and Manitou, the former on the line of the railroad, and the latter 5 miles distant by carriage road. Manitou is famous all over the land as a summer resort, and indeed is becoming quite a favorite rendezvous for travelers in winter. It is situated in one of the wildest and most beautiful of mountain glens, [illegible] an altitude of 6,250 feet, possessing as the principal attraction seven noted mineral springs. These springs are named "Manitou," "Navajo," "Comanche," "Shoshone," "Arrapahoe," "Misha Tunga," and "Pawnee," all possessing valuable curative properties. Iron and soda are the prevailing constituents, and the waters from the richest are said to contain an ounce of medicated matter to every four gallons of water. Other attractions in the vicinity are "Garden of the Gods," Cañon of the Fountain, Glen Eyrie, Ute Pass and Falls, Cheyenne Mountain and Rainbow Glen. Ascents of Pike's Peak are made from here; distance to summit, air line, 8 miles. There are four hotels here, charging from $2.50 to $4 per day, and furnishing accommodations from the average grade up to the best obtainable at any watering place east or west. Daily stages from Manitou to Colorado Springs connect with the trains.

Pueblo.—Southward from Denver 120 miles, in the valley of the Arkansas, is Pueblo, bearing to some extent the same relation to southern Colorado that Denver does to the northern portion. It contains 5,000 inhabitants, Holly water works, rolling mills nearly completed, fine school and church privileges, and has virtually three railway lines—the Atchison, Topeka & Santa Fe, Denver & Rio Grande, and a branch of the latter road running up the Arkansas to Cañon City, 40 miles distant. 97,000 tons of freight were handled here by the different railways in 1877, and among important shipments were 13,000 head of cattle.



UTE FALLS, MANITOU, COL.



BOULDER FALLS, BOULDER CANON, COL.

Reached via Union Pacific Railway, Colorado Central Branch.

The branch railway line to Cañon City opens up a rich agricultural and mineral region, and attracts considerable trade and travel from the southern and western counties of Colorado. Near Cañon City are extensive deposits of coal, from which were taken 53,000 tons of excellent fuel in 1877. At Cañon City are warm and cold soda springs of considerable merit, and just above town is the entrance to the

Grand Cañon of the Arkansas.—This is a gash of remarkable beauty and magnificence, the walls rising almost perpendicularly from the water's edge to the height of 1,500 to 3,000 feet. The climate is one of the most equable and pleasant, the year round, to be found in Colorado. Summer and fall often extend far into the winter, while fruits and flowers which are too delicate for northern sections of the state flourish in the open air. Trout are plentiful within easy walk, and large game ditto within a day's ride. Westward 25 miles are the Rosita gold and silver mines, now yielding at the rate of $250,000 per year. Daily stages thither. Rich copper ore and paying oil wells are found near Cañon. The Colorado State penitentiary is located here.

New Mexico.—This great territory, with an area of 121,000 square miles, and a population of 100,000 souls, has been rendered tributary to the Rio Grande Railway by the extension of the line southward from Pueblo 86 miles, to El Moro. The importance of its trade can be in a measure imagined from the facts that as many as 1,000,000 sheep have been sent to market per annum from its boundless pastures, 10,000,000 pounds of wool clipped, and that one silver mine produces a ton of base bullion per week, and a copper mine, with the rudest appliances, turns out 8,000 pounds of pure copper per week. The freight shipped and received by the Rio Grande Railway at El Moro from this great southern country in 1877 amounted to 42,971,589 pounds. The territory possesses a delightful climate. Vast areas of rich mining country, and millions of acres of unsurpassed grazing and agricultural lands are yet unoccupied. Southward only a few hundred miles are the rich and populous states of northern Mexico.—the land of the orange and grape—soon to be pouring their wealth of mines, pastures and vineyards northward over this highway, and eastward via Omaha and Chicago. Daily stages run between El Moro and Santa Fé. Distance 205 miles.

The main line of the Denver & Rio Grande continues its course southward from Pueblo 100 miles to the eastern edge of San Luis Valley, and for the present makes its terminus Garland City. This is the real gateway to the San Juan mines, and is the point where freights are transferred, and travel seeks the stage coach. The road only reached this point in August, 1877, but for the five months ending December 31, 1877, freights forwarded and received at the Garland depot reached the handsome figures of 12,944,158 pounds. Veta Pass, just east of Garland, over which the railway is laid, is unsurpassed for the magnificence of its scenery. Railway engineering here has surmounted wonderful difficulties, and affords the tourist a constant view of its most brilliant achievements.

"*THE SAN JUAN REGION*"

is the title generally applied to the extensive and marvelously rich silver mining country in southwestern Colorado. It comprises the counties of La Plata, Hinsdale, San Juan, Ouray, and portions of Rio Grande, Conejos and Saguache, and covers the princely area of 14,000 square miles. The discoveries generally are confined to great altitudes and unusually rugged mountains. Before the era of roads some of the miners carried small lots of the rich ore out over the snowy summits, a dozen miles, on their backs, and rendered their avocation profitable at that. The great first work has been to render the region accessible by constructing good wagon roads. This accomplished to a large extent—with the near approach of the Denver & Rio Grande Railway—and the progress has been noteworthy, even in this fast age. Towns have sprung up as if by magic. What was a wilderness of almost inaccessible mountains, 300 miles from railway two years ago, is echoing with the din of some sixteen quartz mills and smelters. Nearly 10,000 mines have been discovered and located. Large areas of choice agricultural, grazing and timber lands have been thrown open to settlement. The number of sheep now in this region is estimated at 400,000 head, and the wool clip for 1877 at 800,000 pounds. Base bullion to the amount of 900 tons, worth from $280 to $350 per ton, was sent out over the Rio Grande road during the past summer. The freight business was also immense, about 5,000,000 pounds of supplies, mining machinery, etc., having been hauled in over the different routes last season.

The Principal Districts are Summit, Animas, Eureka, Uncompahgre, Lake, Galena, Park and Decatur. These lie along the San Juan river and its many tributaries and along the tributaries of the Grand on the western slope, and at the headwaters of the Rio Grande on the eastern slope. The best developed and richest mines thus far worked are the "Bonanza," "Saxon" and "Alaska," in Uncompahgre District; the "North Star," "Empire," "Grey Eagle" and "Aspen," Animas; "Mountain Queen," "Mammoth and Red Cloud" and Maid of the Mist," Eureka; "Young America" and "Dolly Varden," Galena; "Ute and Ule" and "Hotchkiss," Lake. Ores from these yield $100 to $2,000 per ton. Specimens of nearly pure silver have been taken from the "North Star," in Animas District, while the "Mountain Queen," in Eureka District, has a large vein yielding 75 per cent lead and 50 ounces silver per ton. The mines of Summit District are all gold-bearing, and are literally "quarries of free gold ores," the receipts from the "Little Annie" having been as high as $4,000 in gold per week.

Towns and Camps.—Following are the principal towns, with their altitude, population, name of county and distance from Garland, at the terminus of the Denver & Rio Grande Railway. There are many small camps, the entire population being estimated at 10,000. Good mountain roads connect all camps with Garland:

Town or Camp.	Distance.	Altitude.	County.	Population.
Del Norte	65	7,807	Rio Grande	2.500
Lake City	145	8,550	Hinsdale	1,500
Silverton	185	9,400	La Plata	1,000
Ouray	228	7,300	San Juan	800
Crooke City	147	8,600	Hinsdale	500
Capital City	150	9.500	Hinsdale	400
Howardsville	165	9.700	San Juan	100
Eureka	176	9.900	San Juan	100
Animas Forks	172	11,000	San Juan	100
				7,000

Scenery, Rates, Distances, etc.—As San Juan is by far the most rugged and mountainous section of Colorado, traversed by numberless streams and abounding in parks and lakes, it may be imagined that the scenery is superlatively grand. There are hot springs at Wagon Wheel Gap, 30 miles above Del Norte, and at other points on regular stage lines. Fishing is tip-top in the Rio Grande and other streams. Game is exceedingly plentiful away from the camps. Large crops of grain and vegetables are produced in Saguache and Animas valleys, and dairying is largely carried on at great profit. The market for all produce is unexcelled. Barlow & Sanderson's daily stages run from Garland to Del Norte, Lake City, Silverton, and all other prominent points; fares: Denver to Del Norte, $22; Denver to Lake City, $37. Hotels at all towns and camps; rates: $2.50 to $3.50. Ruter's Concord coaches also leave Garland every other day for Costilla, Red River Settlement, Taos and Santa Fé. Distance to Santa Fé, 155 miles; fare, $25. The famous Ojo Caliente hot springs are 20 miles west of Taos, and a side stage line will carry passengers over during the coming season. At Garland prices of produce are: flour, $3.75 per cwt.; potatoes, $2; corn, $1.65; oats, $1.85; butter, 35 cents per pound

CHAPTER IV.

WESTWARD TO UTAH—LARAMIE PLAINS AND NORTH PARK—CAMPING OUT—NOTES FOR THE TOURIST.

Returning to Cheyenne over the Colorado Central, and resuming our journey westward on the great trans-continental line, we soon crossed the main range of the Rocky Mountains at Sherman—549 miles from Omaha, at an elevation of 8,242 feet—and looked down upon that vast grassy amphitheater, the Laramie Plains. On a perfectly clear day the view from some of the slopes overlooking this basin is grand beyond description. The hundreds of square miles of pasture lands and arable valleys lie in full view. Through the center the course of the noble Laramie river is plainly traced by its broad bands of rich, green meadows, its groves of cottonwood, and at frequent intervals its own shining bosom. Twenty-five miles distant the black clouds of smoke of fair Laramie City mingle with the bluest of ether, and, by the aid of a good glass, one can trace the rows of brick blocks, the machine shops and rolling mills of the thriving entrepot there built up under the stimulating influence of the Union Pacific Railway. To the west rise the white peaks of the Medicine Bow range. Southward are the clear-cut, sharp-pointed Diamond Peaks, the Black Hills swinging around on the northern side, and with the main range forming a perfect girdle and shelter. Dark pine forests lie against the horizon almost everywhere.

The Laramie Plains contain nearly 8,000,000 acres of unsurpassed winter and summer grazing lands. The average elevation is 7,150 feet. Over 50,000 head of stock are grazing in this region, and many of the finest ranch sites are still to be had for the simple taking. The railroad company has also choice tracts of agricultural lands along the principal streams, which can be obtained in the same manner as the Nebraska lands. Wheat, rye, oats and barley have been experimented with here, and are found to yield bountifully by irrigation. The population is estimated at 8,000. The principal streams are the Big and Little Laramie rivers, Rock Creek, Deer Creek, Medicine Bow river and Cooper Creek, all tributaries of the North Platte river. It was in the extreme northern edge of these plains that General Reynolds, of the United States Army, wintered with a few followers in 1860. His expedition had made hard marches all summer, and when winter set in the animals were turned out to seek their own living, all thoroughly broken down, poor and unfit for use. In the spring these horses, with one exception, were fat and in perfect condition to commence their season's work. Reporting upon this, the General said: "This fact, that 70 exhausted animals, turned out to winter on the plains the 1st of November, came out in the spring in the best condition, and with the loss of but one of the number, is the most forcible commentary I can make of the quality of the grass and the character of the winter."

Sheep Raising.—The climate and grasses are especially adapted to sheep raising. Some 35,000 head of sheep are now grazing in different sections, and their owners claim a profit, one year with another, of 25 to 35 per cent on the capital invested. Feed is only required during a few days of winter, the average not being a month in the whole year, and only hay is used. This is cut at slight expense on the meadow lands along creek bottoms. Mexican sheep cost $2 to $2.25 per head, and are rapidly graded up by the infusion of better blood—Merino bucks generally being used. To commence with, a herd of 1,000 sheep—which is about the average number started with—will require an investment of $4,000, as follows: 1,000 Mexican sheep, $2,000; 20 Merino rams, $300; corrals, cabin, etc., $500; leaving $1,200 for carrying on the herd until some income from the flock is obtained. Herders cost $25 per month and board. The wool of graded sheep will pay all expenses of the flock—that is, after one cross of the Merino with the Mexican. The increase will average 80 per cent. In flocks of 1,000 the total expense of keeping will average 60 cents per head per year, under economical management. Mutton lambs sell at $2.50 to $3; mutton sheep, $2.50 to $2.75; wool, 18 to 20 cents per pound. The Mexican sheep yields 2 pounds at a clip; first cross with Merino, 3 pounds; second cross, 4 pounds, the wool increasing in value about 2 cents per pound with each cross.

To double the capital in three years is a very common result, and this has been accomplished in two years, with especial good management. All sheep brought from the south yield a larger quantity and finer grade of wool after the first year—a fact partly due to the superiority of the grasses here and partly to the unvarying cool and equable temperature of these high altitudes. One breeder figures up his business for a term of five years in this wise: Increase from 1,000 ewes, 75 per cent annually, 7,823, worth $2.25 per head, or $17,601.75. Value of wool, at 20 cents per pound, $4,829.20. Aggregate in five years, without including the value of the original band, $22,430.95. His average expense of keeping was only 50 cents per head per annum, or $6,411.50. Net profit for the five years' operations, $16,019.45. This result, large as it may seem, was obtained by breeding only Mexican sheep. Under the improved system of grading up the sheep and thus securing more and finer wool and a larger animal for mutton, a difference of $7,342.30 is shown, and the ranch-man who raises the better herd and clips the finer fleece exhibits a clear profit of $23,361.75 from his investment of $4,000 and his five years' work.

The pastures are boundless; consumption always keeps pace with production, and these experiences can be duplicated by thousands of ranchmen along the grand old mountains and among the grassy foothills.

Dairying.— Quite a number of the most intelligent ranchmen are turning their attention solely to the production of butter and to marketing milk at Laramie. While the latter branch of the business might easily be overdone, it is self-evident that the manufacture of butter and cheese can never be. No climate in the world can excel this for dairying. The cool, pure atmosphere, the crystal stream, the wonderfully sweet and nutritious grasses are auxiliaries which no eastern producer can ever hope to enjoy to such an extent as does the Wyoming dairyman. Feed of the choicest kind costs nothing, the simple cabin in the mountain glen has thus far been the milk house, and the market is at hand in the mines, in the lumbering camps and at the railway. Wyoming produces only one-third of the butter consumed, the balance being shipped from distant states. Home-made or ranch butter always sells from 5 to 10 cents per pound higher than the eastern article and is always eagerly sought for by first-class hotels and the better class of citizens. Dairy cows sell readily for $40 per head here; best grades of butter at from 30 to 40 cents per pound.

Laramie City.—In the midst of these plains, and on the south side of Laramie river, is the city of the same name. It is distant from Omaha 572 miles; altitude 7,123 feet. It contains a population of 3,500 souls and is not only the "Gem of the Laramie Plains," but of all Wyoming, for beauty of location, finely laid out streets and pleasant homes. Laramie is only a fair example of what industry and thrift railroads can create in a wilderness and of what the Pacific Railway has done for two thousand miles of country which would yet be utilized only by the savage and wild beasts but for its civilizing influence. The only rolling mills in operation between the Missouri river and the Pacific coast are located here. These were built by the Union Pacific company in 1875, at a cost of $250,000, and have a capacity of 20,000 tons of railroad iron per annum. Two hundred men are employed. As this is the end of a regular division of the road the company has also extensive machine shops and a round house here. A large number of men are employed in these, and the amounts disbursed here and at the rolling mills monthly put many thousand dollars into home circulation. The river contains a sufficient volume of water to furnish splendid water-power. Enterprises looking to the manufacturing of iron from the vast deposits of ore near the city, and for utilizing the great soda deposits, also located here, are already freely talked of. Woollen mills are also greatly needed. It is well known that gold, silver, copper, lead, plumbago, iron, antimony, red hematite iron, brown hematite specular iron, sulphate of soda, gypsum, marble and cinnabar, are found within a radius of 30 miles of the city, in such quantity that they can be readily utilized with a reasonable outlay of capital.

Freight is received at the Laramie depot to the amount of nearly 20,000,000 pounds per annum. Another item showing the thrift and traffic of the place is the post-office money-order business. During the fiscal year ending June 30, 1877, money orders were sold to the amount of $56,237.84. A fine system of water-works sends pure spring water through the streets and into the houses.

A Catholic hospital and convent are located here. From Laramie there is tri-weekly mail service to Hans Peak gold mines, 112 miles; to White River Agency, Colorado, 228 miles; weekly to Fort Laramie, 85 miles, and weekly to Centennial and Last Chance mines, 30 and 40 miles respectively.

Mining.—The principal gold and silver mining districts tributary to Laramie City, are Rock Creek, Centennial, Sheep Mountain, Big Laramie, Douglass Creek or Last Chance, and the North Park districts. Rock Creek is composed of placer mining claims, forty miles northwesterly from Laramie, which were only discovered a year ago, and which promise well. Work with the hydraulic is already progressing. The Centennial district, thirty miles west of Laramie, by an excellent wagon road, was opened in 1876, one quartz claim yielding $30,000 in gold that year. Several large deposits yielding as high as $100 to the ton of ore have been discovered, but are only partially developed. Sheep Mountain district is near Centennial, and is noted for its rich silver ores. Assays from different mines at depths from 30 feet downward have run as high as 2,000 ounces of silver to the ton. Thirty miles south of Laramie is the Big Laramie Quartz and Placer Mining District, in which both gold and silver mines of undoubted great value have been discovered. Large deposits of copper, assaying $110 per ton, are also found in this district. Southwesterly from the city forty miles is the Last Chance District, containing rich gold quartz and placer mines. "Pay-dirt" has been found in over a dozen of the lodes from the "grass roots down. Four companies are operating these mines with gratifying success; over 300 tons of ore, assaying $300 per ton, now lying at the mouth of one mine awaiting the advent of quartz mills. These districts, it should be remembered, are on the outskirts of an extensive unprospected mineral-bearing region.

On the borders of North Park, sixty miles south of Laramie, rich discoveries have recently been made of gulch mines, auriferous quartz, and ruby silver. We have seen beautiful nuggets from gulches in this vicinity, and the quartz mines bid fair to equal those of the very best districts of Colorado. Still farther southward—from 100 to 125 miles, and over the borders of Colorado—are the noted Rabbit Ear Silver Mines and the Hans Peak Placer Mines, which, during the seasons of 1876-'7, attracted widespread attention on account of their richness and extent of deposit. Specimens from the "Grand Lake" and other mines, slightly roasted, show globules of pure native silver. The Hans Peak placer mines have been sufficiently developed to establish the fact that they are the most extensive of all new districts in the Rocky mountains. Mining experts from San Francisco, Arizona and elsewhere, pronounce the wealth of one bar ("Poverty Hill"), which has been thoroughly prospected, at nothing less than millions. This bar covers 250 acres, and is being thoroughly opened up by means of flumes and the hydraulic. Hans Peak rises grand and grim over the different camps to an altitude of 11,000 feet, and, as wonderfully rich specimens of quartz are sometimes picked up in the gulches below, it is generally believed that this immense deposit of placer gold has been washed down from some giant fissure vein of the mountain.

All of these districts are rendered tributary to Laramie by good wagon roads. Of themselves they will build up a large city of quartz mills, smelters and sampling works, for the wealth is uncovered, and Yankee enterprise will soon step in and throw it into the channels of trade in the form of bullion.

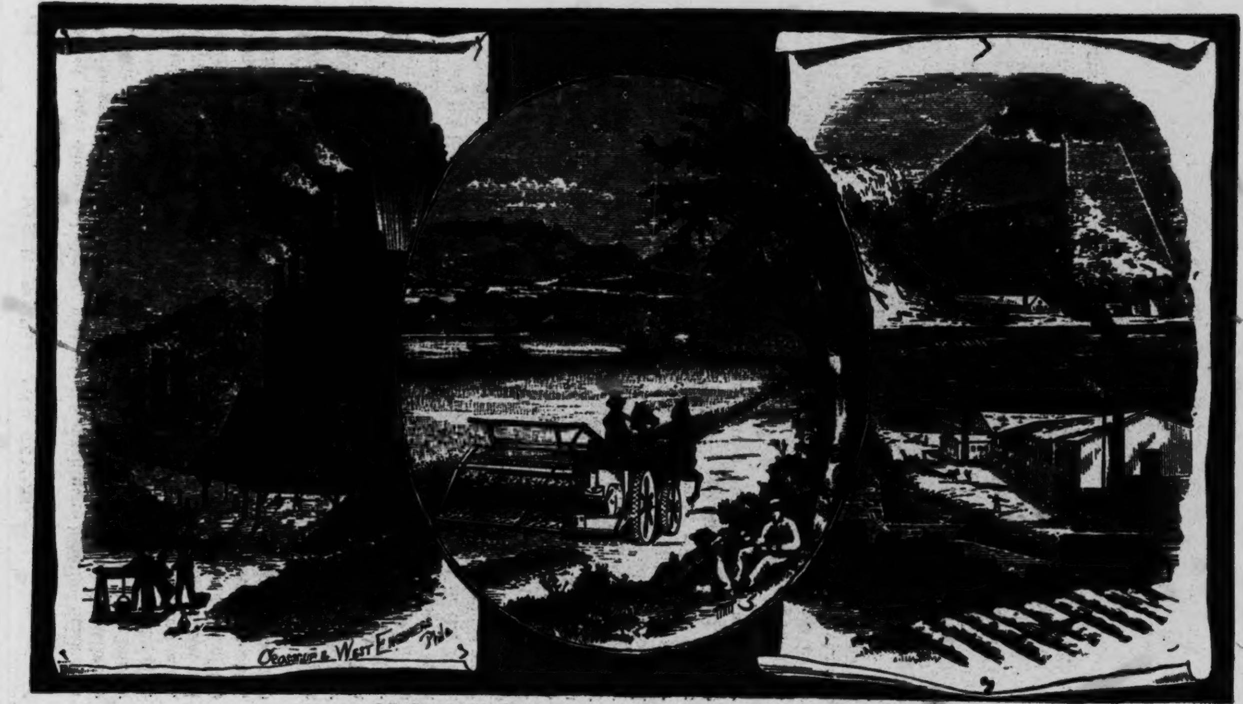
These vast fields offer great inducements to capital, large or small, and should not be passed unnoticed.

One of the largest and richest deposits of iron ore in the United States is found 25 miles north of Laramie, near the head of Chugwater Creek. The ore is described by Hayden as a black, crystalline magnetic, yielding 68 per cent of iron, and the deposit is simply a vast mountain literally inexhaustible. The ore is naturally located much like that in the Lake Superior region, but thousands of tons have been washed down into the valley.

Soda, Marble and Lumber.—Eleven miles southwest of Laramie are located the famous soda lakes, which have attracted so much attention from scientific men and others. They exceed 100 acres in area, and contain solid beds of crystallized sulphate of soda, about nine feet thick. Upon cutting out a mass of this soda, the springs from the bottom immediately fill the vacuum, and in a few days have crystallized the same amount and quality of material as that removed. Thus the product is inexhaustible. It is estimated that these lakes now contain 50,000,000 cubic feet of chemically pure crystallized sulphate of soda. Soda is most valuable in the form of a carbonate, and the process of converting this into carbonate of soda is very simple, and comparatively inexpensive. Soda is consumed in the United States to the amount of 250,000,000 pounds a year, costing $7,000,000; and this is all imported from foreign lands. These lakes would supply American consumption for years to come, and in them Laramie undoubtedly possesses a vast mine of wealth.

The only marble yet discovered in the western country of real value, so far as we know, is the deposit owned by the Wyoming Marble Company, and located 25 miles north of Laramie City, 12 miles from the line of the Union Pacific railroad. The ledge is 80 feet wide, has been traced for ten miles on its surface, and prospected to a depth of 100 feet without reaching bottom. Specimens of the marble have been worked and tested by prominent dealers in this material in Chicago, St. Louis and other cities, and pronounced equal to the best Vermont marble for monumental and other purposes. A St. Louis importer says it "cuts as nice and clean as statuary marble." There is enough of it to build the state-houses and government buildings of the Union for all time to come.

The lumber interest at Laramie is worthy of note. The heavy forests noticed in the mountains from 30 to 40 miles south of the city are producing an average of 2,000,000 feet of lumber, 2,000,000 shingles, 500,000 lath, and 300,000 railroad ties and large quantities of fencing annually. Large mills are busily at work in the forests sawing out the lumber, while many teams find employment in hauling it to the track. Ties and fencing are floated down the various streams during high water season—spring and summer. Tie Siding, Rock Creek, Medicine Bow and other railroad stations on either side are shipping points for much of this product. Half a dozen companies, employing from 25 to 50 men each, are engaged in this industry. Professional lumbermen from Maine are here often employed. They get from $4 to $5 per day, while ordinary laborers and mill hands receive $30 to $40 per month and board. Rough lumber sells at an average of $22 per 1,000 feet; finishing lumber, $38 per 1,000 feet. The common mountain pine furnishes the principal lumber supply. It is as white as the eastern pine, almost as hard as the best spruce, and is nearly identical with the Norway pine in size and appearance. Although containing more knots, it is finer-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DEVELOPMENT IN THE "WYOMING OF THE FUTURE."

grained, more dense and elastic, and takes a much more beautiful finish than the pine growing in low altitudes east. All lumbermen pronounce it better for wear or outside work, and it has almost supplanted eastern finishing lumber in these western cities. Wherever there are mountains we also find the pine. Wyoming is estimated to contain 15,000,000 acres of these superior forest lands. From these have been cut 7,000,000 railroad ties, 50,000,000 feet of lumber, and incalculable quantities of telegraph poles, fencing, etc., since the advent of the Union Pacific Railway, ten years ago. But the best forests are scarcely touched, and the market is nothing compared to what it will be as other resources become thoroughly developed.

Hunting in North Park.—We saw antelope in herds along the track, almost in sight of Laramie, and found the mountains within twenty miles of the city full of all kinds of large animals native to this region. But North Park, which is only 60 miles distant, is a very paradise for game, and in the writer's estimation surpasses any other section on the continent of equal accessibility in this particular. We mounted broncos at Laramie, took a couple pack animals laden with only the barest necessities, and had a royal ten days' hunt in the North Park country. The wagon road thither passes through a region which would itself be called superb hunting ground almost anywhere, and we must confess that our success from the very outset scarcely justified a trip to the Park. Elk, mountain bison, deer, antelope, bears, Rocky Mountain lions, mountain sheep, beavers, sage hens, grouse, geese, ducks, etc., have always made North Park an ideal hunting ground by their unusual numbers, and one which is becoming rapidly appreciated by western sportsmen. This great park is 60 miles long by 50 wide, has an elevation of about 8,500 feet above sea level, and is surrounded by snowy mountains from 13,000 to 14,500 feet high. Below the line of perpetual snow—about 12,000 feet—the mountains are covered with dense forests; some of the spurs jutting far out into the Park are also well timbered. Three forks of the North Platte and numerous tributaries water this area more thoroughly than are any of the other mountain parks.

We can truthfully assert that we here saw antelope in herds by the thousand, and deer and elk by the hundred. While lying in camp during the day we had antelope tempt us by interviewing us at 50 yards or less, and at night had our ponies in perpetual uproar on account of the loud splashing of playful beavers in the streams. Game is hauled from North Park by the wagon load whenever a hunting party does enter its sylvan precincts. Here the tourist can find solitude to his heart's content, the sportsman can find game with little appreciation of fear, and the health-seeker can dream away days in utter independence. Large springs of mineral waters are found in various localities. One of these boils up with great force from a cavity four feet in diameter, and that may be bottomless for aught we know. It is cold, strongly impregnated with iron, and really pleasant to the taste, but an analysis of the waters, found on the unblacked side of an old boot-leg near by, rather stuns us. We give it without remark, signature and all:

"Blue Lick	36
Cherry Pectoral	14
Scrap iron	40
Drake's Plantation Bitters	5
Paregoric	3
Laughing gas	2
F. V. Hayden	a trace
Brimstone	a trace
Total	100

(Signed) U. S. Geological Survey."

We may soon see here large herds of cattle, where the visitor will now look in vain for a single hoof. Old hunters and trappers tell us that stock has wintered in the Park with but slight loss; and with the thousands of acres of waist-high grass for hay, ranchmen should certainly be able to fortify themselves against the severest storms. We find as many strange freaks in the vegetable kingdom here as elsewhere in the Rocky Mountains. Morning after morning in midsummer have we shaken the thick, crisp scales of white frost from our blankets, and looked sorrowfully around upon a scene of apparent desolation. Brilliant flowers of the evening before were a mass of wilted ruins and the splendid tall bluegrass, that looked a delicious morsel for stock at sunset, was bent and sometimes broken with its weight of a night's winter. But an hour of sunshine always changed the scene to one of springtime freshness, and often the flora seeming the most delicate rallies first, under its magic influence. Scarcely a week passes without heavy frost, yet, strange as it may appear, flowers bloom throughout the season, and strawberries ripen even to the height of 10,000 feet above the sea, and in close proximity to the eternal snows. In Switzerland the regions of perpetual snow begin at 6,500 feet above the sea; here at 11,000 to 13,000. The head of the Park is two miles higher than Boston, and the air is remarkable for its "lightness." Heart and pulse beat free and fast, and the whole system seems charged with a healthy stimulus.

Camping Out.— A trip to North Park of course necessitates camping out, and its many grassy, sheltered nooks, its beautiful brooks and springs, and the abundance of timber, combine to render it the place of all others for such enjoyable experience. Outfitting should be done at Laramie. If the party consists of four or more, buy a double team (or hire one if the trip is to be made quickly) and canvas covered wagon. The cost, if these are purchased, will be from $250 to $400. If properly cared for they can be sold on the return for nearly as much as they originally cost. A tent can be dispensed with if there are no ladies in the party, as the rougher sex can sleep in or under the wagon. It never pays to stint on bedding—the nights are emphatically cool. If the tent is required it will cost $20, and can also be sold on returning. A sheet iron camp stove, skillets, coffee pot, and tin cup, plate, knife, fork and spoon for each person, with butcher knives and axes, are the necessary items for the backwoods kitchen. For a period of one month a party of four should have the following eatables: 20 pounds of breakfast bacon, 20 pounds ham, 50 pounds crackers, 75 pounds flour, 50 pounds potatoes, 1 dozen cans condensed milk, 30 pounds sugar, 10 pounds salt, 2 cans pepper, 2 pounds candles, 5 boxes matches, 2 pounds yeast powder, 10 pounds onions, 10 pounds roasted coffee, 20 pounds corn meal, 20 pounds navy beans, 3 pounds tea, 5 pounds lard, or equivalent in salt pork. Some of these items may look large, but it is safe to calculate on all appetites doubling inside of forty-eight hours from the start. This is what might be termed "comfortable camping out." The cost of the entire outfit, including probable loss on team and tent will reach about $120, or $30 per man. A wagon and team, with driver, could be hired by the week at from $5 to $7 per day. Board at Laramie, $4 per day. August, September and October are the best months for a jaunt of this kind.

Among other resorts near Laramie City are Dale Creek, the upper Cache la Poudre and Sand Creek, all within a day's drive. In the stream first named trout fishing is good, and Sand Creek waters one of the most picturesque valleys imaginable. Its high, rocky walls, its interminable windings, and its grassy banks, present pictures we can never forget. It rises among the mountains which form the southern boundary of the Laramie plains, flows northward to within ten miles of the city, and empties into the Laramie river. We camped one night at the first available point, without regard to Nature's attractions. A broad ledge of smooth, flat granite there formed the creek-bed, and above that, on one side, another, wide enough for a dancing-floor, served for our table (one corner of it, at least). Just below, the breadth of thick, tall grass reminded us of a Kentucky meadow; while fifty yards above was a foaming cataract, which, after leaping from a rocky basin thirty feet in diameter, dashed its crystal body into an abyss over which we easily leaped. Then for an instant the stream was lost to view under a natural bridge, composed of one solid block of granite some twenty-five feet square, and weighing thousands of tons. Wherever there was room between the immense slabs of rock, graceful clumps of willows nodded affectionately over the stream, and often a huge wide-branching cottonwood flung grateful shade over all. Bordering the valley were high battlements of red limestone, so unbroken and perpendicular that we were obliged to travel several miles down stream to find an opening for our saddle-horses. Standing out in lonely grandeur, high above all the rest, was one mass which closely resembled the ancient ruins we often see pictured, and which, if properly stationed on one of Britain's isles, would answer well for the remains of an old-time castle. We had rare antelope hunting near here.

North Platte River.—At Fort Steele, 695 miles from Omaha, the railway for the second time crosses the North Platte. It is here really a "mountain stream," as it sweeps down freshly from the snowy ranges of the south. It is clear, deep and cold, and flows over a gravelly bed, contrasting strongly and beautifully with its shifting sands, slower current and less picturesque bottoms which we first encountered 600 miles behind as we entered the Great Plains. The Platte affords rare sport for the angler. Pike, perch, catfish, suckers, etc., abound in its waters, and although not quite so gamy as the trout, oftener attain good size. Geese and ducks are very plentiful, and of course we had good deer and antelope hunting here, anywhere within a dozen miles of the track. We passed over grazing lands here not a whit behind those of the Laramie Plains. Ranchmen are becoming quite numerous, and some very large herds of cattle are owned along the river and its tributaries. An enterprising pioneer, located some twenty miles up the river, is proving the value of Platte Valley soil at this altitude. He raised some 60,000 pounds of potatoes in 1877, and sold them at the railroad for from three to five cents per pound. His experiments with other vegetables demonstrated the fact that all roots can be grown with wonderful success. He is paving the way for thousands of others who will soon settle along this splendid valley when its advantages are better known. This is quite a point of shipment for ties, thousands being cut in the great forests along the Upper Platte and floated down to Fort Steele annually.

Rawlins is the county seat of Carbon county, and the principal outfitting and transfer point for the Snake River settlement, 75 miles south, as well as for the Ferris and Seminole mining districts, 40 miles north. It has a population of about 800, who are largely dependent upon the railway business here growing out of extensive machine shops, round-house, etc. Resources are numerous and valuable enough hereabouts to build up a large and thriving city. Two miles north of town are large deposits of red hematite — iron ore — which are becoming extensively utilized in the manufacture of paint. Two companies have opened mines, and have built mills to work up the ore. About 200 tons of metallic paint have been manufactured. The product is of such superior quality that different railways use it for outside work where a thoroughly water and rust-proof paint is desired. The deep red freight and flat cars and the station houses we saw all along the line are coated with this. We saw great piles of the ore lying along the track waiting shipment westward. Something like 25,000 tons of this have been shipped to Utah, where it is used as a flux for smelting silver ores. The Ferris and Seminole mines, already alluded to, are undoubtedly rich in gold, silver and copper. Over 100 claims have been located and several true fissure veins are now being developed. Ores run in value from $100 to $200 per ton. In a dozen of the mines, carrying a large percentage of gold, beautiful specimens of free gold quartz have been taken. The "Ernest," "Slattery" and "Mammoth" are among the principal mines. There are good wagon roads from Rawlins to these districts, one of them passing on northward to the Big Horn Region. Soda beds, similar to those near Laramie, are also found within 60 miles of Rawlins to the north. The country adjacent and south into Snake River Valley is well stocked with cattle. Shipping facilities being very good at Rawlins, cattle are driven here in great numbers and sent upon their journey eastward. During the writer's visit one firm made a sale of beef cattle to be delivered here the consideration of which was $52,000. Many Montana ranchmen seek this outlet for their beef. Rawlins is 700 miles from Omaha.

Forty miles south of town, near the North Platte, are some hot springs which bid fair to attract much attention in the near future. Iron, sulphur and magnesia predominate in the waters, the latter reaching the high temperature of 130 degrees. A few buildings of rather inferior quality have been erected for the accommodation of visitors. Good fishing and hunting are side attractions here. The wagon road from Rawlins is very fair, and livery can be obtained at from $4 to $6 per day. Board at Rawlins, $2 to $3. A mile east of town is a large sulphur spring, almost unnoticed, because unknown. These multitudes of attractions in the Rockies seem to appeal to us mutely now at every turn for the attention and homage that will be richly lavished upon them in years to come.

To the Big Horn.—At Rawlins you can ordinarily meet several old trappers or scouts who have been in the Big Horn region and who declare the route from here to be superior to any other. These men have led European hunting parties in that direction, and the English nobility, especially, always come back wildly enthusiastic and glutted with glories of the chase. Aside from the reputation of the Big Horn region as a golden mecca for the miner, we can again say from personal knowledge, that the country is prolific in beautiful and fertile valleys, in vast and unexcelled stock ranges, in magnificent scenery, and is alive with large and small game. Following are distances and camping places on one or the Rawlins routes. The last 125 miles is lined with good camp grounds:

	Miles.
From Rawlins to Brown's Cañon	12
Brown's Cañon to Seminole	23
Seminole to Sand Creek	10
Sand Creek to Sweetwater River	15
Sweetwater River (bridged over) to Rattlesnake Range	16
Across Range to Poison Springs Creek	8
Poison Springs Creek to Cloud Peak	125
Total	209

Ponies and outfitting goods of all descriptions can be purchased at Rawlins, and parties in need of a good guide should always look up Tom Sun, an old hunter and government scout, who knows the country thoroughly and is just the man to chaperon a hunting or exploring party. His address is Rawlins.

Snake River Valley.—We spent a week most delightfully with the hospitable settlers of Snake River Valley, trout-fishing, hunting and exploring among the hills. The valley is about 75 miles south of Rawlins by a good wagon road, was first settled six years ago and now contains 300 of as thrifty, "well-fixed" and contented denizens as one could wish to see. Snake River rises among the snowy gulches of Hans Peak, and flows southwestward 125 miles to its junction with Bear River. It and its numerous snow-fed tributaries are full of trout and the bluffs along its lower length, or the mountains at its head, abound in elk and deer. The best grizzly bear hunting in the whole west is near its headwaters, but we hunted grizzly bears with a well organized platoon of sharp-shooters and recommend that their rights to all country which they may have pre-empted be declared sacred and inalienable.

Wheat, oats and potatoes are produced in the valley quite extensively. Dairying is also a favorite and very profitable pursuit, and some 10,000 head of good beef cattle are grazed here. Coal of a superior quality is very plentiful; all varieties of mountain timber ditto. Dixon is the principal post office, distant from Rawlins 80 miles. Accommodations can be secured at different ranches at from $8 to $10 per week.

Looking out over the desolate expanse of sand and sage brush at Rawlins, Green River and other points the visitor can hardly believe that Wyoming possesses such a wealth of farm and pasture lands as has been credited her. Having ridden on horseback lengthwise of the territory from end to end by two different routes, and across the broad domain north and south the same way, the writer feels thoroughly justified in saying that *it would have been impossible to select another such an apparently barren route for the railway.* The Platte, Sweetwater, Wind, Yellowstone, Laramie, Powder, Big Horn, and other splendid water courses to the north, with their numberless tributaries, furnish the most beautiful and productive valleys in the Rocky Mountain region, with millions of broad and fertile acres unclaimed and to be had for the simple taking. The throngs of tourists and emigrants hastily passing through should remember these important facts and not take it for granted that sections which cannot be seen—because a better railroad grade has carried them hither—are also of this forbidding nature. The few occupied valleys of Montana, all north of Wyoming's agricultural belts, and depending upon irrigation, produce about three million bushels of grain and potatoes annually, which, with other farm productions, sell at home for over five million dollars. The finest beef also comes from the all-the-year grazing lands of that northern latitude, and is only one among the many other points illustrating the capacity of Wyoming's equally creditable but unsettled plains and valleys.

The Rock Springs Coal Mines.—Among all the vast resources of this western country which are made to pour out wealth and add to the nation's prosperity through the enterprise of the Union Pacific Railway Company, few are more important or more thoroughly utilized than the great coal measures. We passed through an essentially coal formation for hundreds of miles, and here at Rock Springs, 831 miles from Omaha, had a fair illustration of its value as well as of the company's gigantic "side enterprises." There are several veins of semi-bituminous coal here, ranging in thickness from four to ten feet and extending far back into the hills. The coal cokes fairly, and, as ordinarily consumed, burns into fine ashes without clinkers. It is especially liked for blacksmithing, smelting and steam-generating purposes, and is not only eagerly sought far to the west, but is about the only coal consumed along the line eastward to Omaha and sells largely in Colorado. About 150,000 tons were mined here in 1877, selling on the track at $1.75 to $2 per ton, and at distant points at an average of $5. One hundred and fifty white men and the same number of Chinamen are employed the year round. Engines, hoisting apparatus and interior arrangements are models of system and completeness. Rock Springs is a village of 500 people. Besides the life given it by these great mining enterprises, it has attained considerable importance as a cattle-shipping point.

Green River City.—Fifteen miles west of Rock Springs is Green River City, the end of a regular division of the road, and therefore possessing machine shops, round-houses, and other accessories of a railroad town. It is also the county seat of Sweetwater county—an empire of wealth and beauty in itself—which boasts an area of 30,000 square miles. Sweetwater is the banner agricultural county of Wyoming, nearly every variety of small grain and vegetables being regularly produced in the northern valleys. The government purchases all the grain and much of the produce offered for sale and pays good prices, giving eastern prices with cost of transportation added. This is consumed at Camps Stambaugh and Brown, in the vicinity. The rich Sweetwater and Wind river gold mines are located in this county, from 100 to 150 miles north of Green River City. A large proportion of the Big Horn range, with its vast undeveloped wealth, occupies the northern end of the county.

The Wind River and Sweetwater Regions.—The quartz and placer mining districts of Sweetwater, South Pass and Wind River cover an area of about 2,000 square miles. A dozen years ago one of the wildest of western stampedes occurred to those mines on the strength of immensely rich placer and quartz discoveries. From one of the quartz mines $200,000 in gold was quickly taken by means of the rudest appliances, and we know of one man, W. C. Erwin, who rode out to Cheyenne with 65 pounds of gold dust from the placers. But the Indians were jealous of this little army of treasure-seekers, and soon discouraged mining operations by killing the pioneers on every hand. The richer gulches were also soon worked out and miners did not care to risk their scalps in those days for a paltry four or five dollars a day. Renewed attention is now being attracted to these mines by the discovery of new and richer ones. Near Two-Ocean Pass and on Clark's Fork, a little beyond the old districts, valuable quartz and gulch mines were discovered in the summer of 1877, and strong mining camps are now organised there. Eight or ten stamp mills are in operation in the old and new districts crushing the rich free gold ores. It is generally believed that great mineral belts are to be found in the mountains still northward, as reliable explorers claim to have found such belts in their wanderings there. The speedy settlement of the Indian troubles along that border will undoubtedly result in a very rapid development of northern Wyoming, as it is at once the great mineral country and the garden spot of the territory.

Near Camp Brown, 155 miles north of Green River City, are hot springs of unusual merit. The water is forced upward through numerous orifices in the bottom of a pool or basin, which covers 6,000 square feet, and a large stream is constantly discharged into the ice-cold current of Little Wind river, near by. Carbonic acid and chloride of lime are given off abundantly, the temperature running from 100 to 120. Rheumatic affections and diseases of the skin are often eradicated by a short season of bathing. The Shoshone Indians, whose agency is located here, have an interesting tradition, making this out the mythical "fountain of youth." A good bath-house is at hand. Daily stages from Green River City; fare, $27; accommodations along the line, and at Camp Brown $2.50 to $3 per day. Trout fishing is superb in numerous streams. Hunting is also first-class in the mountains away from the immediate vicinity of the agency.

Stages—"Sweetwater Daily Stage Line"—run nearer the Big Horn region from Green River City than from any other point and traverse a tolerably well settled country the entire distance. Following are the principal camps, the stages running as far as Camp Brown:

From	Miles.
Green River to Alkali Station	21
Alkali Station to McCoy's Ranch	27
McCoy's Ranch to Dry Sandy	22
Dry Sandy to South Pass City	25
South Pass City to Camp Stambaugh	23
Camp Stambaugh to Lander City	29
Lander City to Camp Brown	14
Camp Brown to Cloud Peak, Big Horn Mountains	140
Total	310

This is also one of the routes to Yellowstone National Park. The tourist takes stages of this line to Camp Brown, and there outfits with ponies, pack animals, etc. The wagon road was not completed from Camp Brown in January, 1878, but extended 100 miles up Wind River Valley, from which point a trail led to the Park, about 60 miles distant. The wagon road was to be built to the Park during the spring of 1878.

Unique and beautiful petrifactions and fossils are found in the vicinity of Green River City, and several cañons through which the river passes below town are worthy of extended notice, but *tempus fugit.*

Leroy Mineral Spring.—Two and a half miles west of Leroy, the latter being on the Union Pacific road, 919 miles from Omaha, is the Leroy Mineral Spring. The water is quite extensively quoted in western Wyoming on account of its medicinal virtues, and testimonials from surgeons of the army and others are not wanting to prove that the spot will soon be much sought on account of the spring alone. The water is highly recommended for the cure of dyspepsia and toning-up of the system. The following is an analysis of the water as made by Assistant Surgeon Smart, of the United States Army. It should be stated, however, that the very important element of carbonic acid could not be determined, as much of this had escaped while the water was in transit from the spring to Camp Douglas, Utah:

	Grains, per gallon.
Carbonate of Magnesia	50.680
Carbonate of Lime	58.674
Sulphate of Lime	41.104
Sulphate of Soda (Glauber's salts)	116.655
Chloride of Sodium (common salt)	270.200
Iron and alumina	1.162
Total	538.475

Potassium is also present in small quantity.

Trains often stop at the spring to enable passengers to drink the water, and we have enjoyed several refreshing draughts here. The valleys and bluffs surrounding abound in agates and petrifactions, while iron, soda and fresh water springs are numerous and often located near together. A little further west, near Piedmont, is a cluster of remarkable soda springs. The sediment thrown out by the principal one has built up a beautiful, conical-shaped body some fifteen feet high. The water is very pleasant to the taste, and undoubtedly beneficial for certain complaints.

Great Flume and Lumber Enterprise.—At Hilliard, 948 miles from Omaha, the railroad passes under an elevated flume, said to be the longest in the western country. It was constructed by Salt Lake capitalists, about three years ago, as a means of transit for lumber, wood and ties from the heavy forests in the Uintah mountains, thirty miles southward, to the track. The flume is twenty-eight miles long, four feet across the top and constructed in a V shape to facilitate the descent of its valuable freight. It required the work of 700 men for three months to complete it, and cost altogether $250,000. Among items used in its construction were 2,500,000 feet of lumber, 5,000,000 feet of timber, and 00 tons of nails. Its fall is from 100 to 300 feet to the mile, and when nearly full of water the timber thrown into it descends with astonishing velocity. During forty days of the season of 1877 18,000 cords of wood were floated down to Hilliard in addition to other products of the pineries. The same company owns a saw mill at the head of the flume which turns out some 35,000 feet of lumber daily.

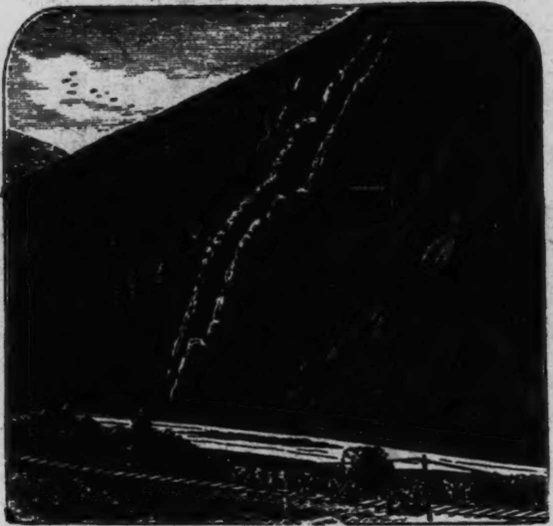
The cord wood is strewn along in sight of the track in a pile 20 feet high and a mile long. It is used in the manufacture of charcoal. Twenty-nine kilns were at work during our visit and produced in 1877 2,000,000 bushels of charcoal. This important product is shipped principally to the smelting works of Utah, but is also partially utilized here at Hilliard by a small smelter. For the six months ending January 1, 1878, the smelter produced 1,187 tons of bullion from Utah ores, worth $100 per ton.

Bear River and Valley.—The clear mountain water used by the Hilliard flume is from Bear river, and soon after leaving Hilliard we entered the beautiful valley of this stream. The river rises in spurs of the Uintah mountains, 30 or 40 miles southward, flows through a rugged and inviting country for the sportsman and tourist northward 150 miles into Idaho. There, making an abrupt bend, it turns almost directly southward again, and finally empties into Great Salt Lake. At places the valley is five to ten miles wide, thickly settled with Mormon farmers and stock growers, and then, suddenly contracting into romantic defiles, is as wild and quiet as any huntsman or angler could wish. Where the soil is cultivated bountiful crops of wheat, rye, oats, barley and hardy vegetables are produced. Stock in Bear River Valley presents a wonderfully different appearance from that on the plains. Instead of commencing with Texas cattle and Mexican sheep, the ranchmen almost invariably started with a small nucleus of American cows and good graded sheep. By steadily improving these they have finally produced a grade of beef, mutton and wool which is always eagerly picked up by dealers in such articles at very superior prices. Dairying is at many points a leading and lucrative pursuit. Cattle and sheep are generally fed and sheltered during winter in the upper half of the valley.

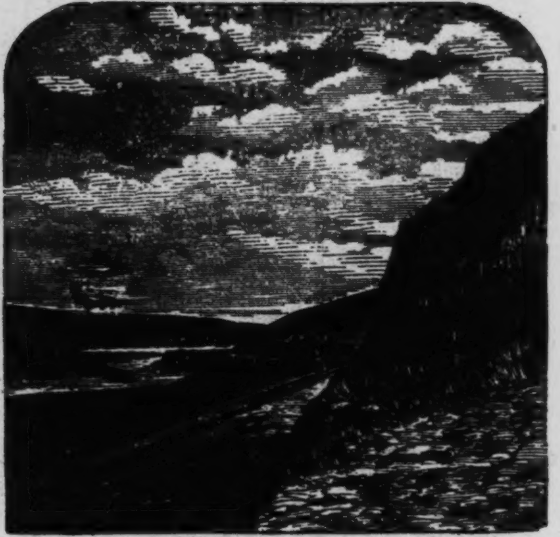
Evanston, 957 miles from Omaha, is located in this valley, at an altitude of 6,770 feet. It is the last town of importance in western Wyoming, and is the county seat of Uintah county. Another division of our great railway ends here, and we notice, in consequence, an immense 20-stall round-house and large car and machine shops. The town contains 1,200 inhabitants, is well built, and one of the most prosperous stations on the line of the Union Pacific. It is the designated shipping point for a large proportion of the Montana cattle which find a Southern market. Two companies add largely to the thrift of the place by their extensive operations in the lumber and charcoal business. The Evanston Lumbering Company cut about 1,500,000 feet of lumber in 1877 and produced a large quantity of charcoal. Bear River here furnishes a splendid water-power, and the town by its superior facilities for manufacturing and the enterprise of its citizens, must soon become an important center for this interest.

Fuel for the Whole West.—Two or three miles west of Evanston are the most extensively worked coal deposits in the western mountain region. The veins are from 20 to 35 feet in thickness, and are being worked by 400 miners. The Union Pacific Company, with other corporations, are producing about 300,000 tons of coal per annum. A large percentage of that finds its way to Utah, Nevada and California. From the statements made in these pages it will be seen that the immense coal measures of the Union Pacific Railway *supply nearly the entire northern half of the great trans-Missouri region with fuel.* The "bonanza" silver mines of Nevada, the gold fields of California, the gold and silver belts of Colorado, and the great wheat lands and pastures of Wyoming and Nebraska all in the end pay important tribute to these never-ending deposits of lignites.

Forty miles southeast of Evanston is a perfect mountain of sulphur. The immense deposit carries from 50 to 90 per cent of pure sulphur. A United States patent has been secured on the property by a company of western gentlemen. Flowing oil springs also have been discovered ten miles east of Evanston and are in process of utilization. The surface oil, which has been draining



DEVIL'S SLIDE, WEBER CANON.



WEST BANK OF GREEN RIVER.

ON THE LINE OF THE UNION PACIFIC RAILWAY.

away in copious quantities, is found to be equal to the best of heavy lubricating oils for stationary or locomotive engines.

Unexcelled trout-fishing in Bear river, rare hunting for large and small game in the vicinity, and most picturesque surroundings, combined with fine cold sulphur springs within half a mile of town, and a pure mountain atmosphere, render Evanston a point much sought by tourists and health-seekers. At the "Mountain Trout House" the visitor can enjoy a bill of fare, which we will guarantee will change his entire make-up in one twentieth of the seven-year period which scientists have allowed for such a seemingly difficult feat. Venison, elk, antelope, ducks, mountain grouse and other game, and the ever welcome mountain trout, are always on the table in season. While upon the subject we should add that Union Pacific Railway eating-houses are proverbially sensible and lavish upon this point of furnishing their guests with game. You therefore not only enjoy one continual round of novel experiences, wonderful and romantic attractions, and breathe the air at an altitude where disease cannot originate, but you can glide royally and lazily onward in your palace car, and feast on the luxuries of the country, whether you are inclined to hunt them or not.

Board at Evanston, $2.50 to $4; livery, $5 to $7. Good wagon roads up or down the valley, and easy bridle trails among the bluffs. Camping out is as enjoyable from here as from any point on the road; outfitting about the same expense as at Laramie City, provisions from the east costing more, but ranch produce a little less. Yellowstone Park is 290 miles due north of Evanston, and can be reached by good roads half way, and trails the remainder of the distance.

Echo and Weber Cañons.—It does seem a little unfortunate that financial and other considerations will not always permit railways to pass through nature's most beautiful pathways. The tourist should remember that to get the *full* benefit of his trip he must occasionally climb the mountains, explore the cañons, and dive into the mysteries of an enchanting region which otherwise he only gets a glimpse of. In passing through Echo and Weber cañons, however, the Union Pacific treats its patrons to views which in themselves are well worth a trip across the continent, and if you are among the kind who cannot tarry, here is the place among all others to open your eyes to the glories of the immediate surroundings. For sixty miles we had a perfect kaleidoscope of novelties, covering all the grounds of natural beauty, wildness, grandeur, sublimity, until we were fairly tired of looking. In such small space the writer can only attract attention to a few striking features of the wonderful dash down through these famous gorges, with the passing observation that the name of those unmentioned is "legion."

Echo Cañon is really entered at Wasatch, 968 miles from Omaha. The bright red sandstone crags soon greet you on either side, and assume shapes so wonderfully fantastic that you can imagine them almost anything. Plunging through a tunnel, we had in quick succession "Castle Rock," with its arched doorway, giant pillars and frowning battlements; "Needle Rocks," sharp pointed and standing out against the sky like a group of old church spires; "Winged Rock," a ledge surmounted with a mass of sandstone which, from our point of view, resembled the wings of some feathered monster; "Steamboat Rock," named from the immense crag jutting out like the prow of a steamer, with the flag of old Ireland (a cedar in its perpetual green) planted firmly and with never fading colors; "Sentinel Rock," rising up grimly and alone, as if to survey the march of progress; and hundreds of others. It is the grandest place in the world for the exercise of imagination. Think of any form or figure, animate or inanimate, and it will rise up clearly among these splintered, weather-worn, gnarled old rocks of Echo and Weber cañons, if you give a lively fancy one half its wonted play. Echo Cañon was well named, for the shrill whistle of our engine and the softer ringing of the bell seemed thrown from wall to wall and intermingled with the steady hum and rattle of our wheels, until a wild and almost deafening Babel of sounds rose from the level of the pretty stream to the summits of the awful cliffs. These "Witches," "Cathedrals," "Devil's Punch Bowls," "Pulpit Rocks," "Swallows' Nests," "Girls of the Period," and their thousand mocking reinforcements along the battlements then seemed to hurl back the refrain upon our humble heads as only such a miscellaneous array of talent could.

At Echo City—which is located in a perfect little fairy glen—we entered Weber Valley, and found cosy rural homes clustered along one of the most beautiful of all western rivers. From here the Summit County Narrow-Gauge Railway leads up Weber Valley to Coalville, 7 miles, where some coal mines are being worked. These streams are full of trout, and waterfowl seem especially fond of the surroundings, for we saw them on the river as we passed swiftly along. It would be difficult to find a more delightful spot for a few days' sojourn than here. Of course one would have to put up with plain farmhouse living, but having entered the land of fruit and flowers, one would at least enjoy them with the luxuries of fresh mountain trout and small game. The cañon above, with its queerly grouped walls from 500 to 800 feet high, and the dozens of side defiles and rocky amphitheaters, together with the finny beauties in the clear and rushing waters, would furnish room for a week's delightful exploration.

Weber Cañon has its multitude of attractions, as well as Echo. The rocks change in color to a deep gray, and are less extravagantly shaped, as a rule, than those left behind, still often rising to prodigious heights, and narrowing sometimes to the river's edge on either side. The "Devil's Slide," probably the most remarkable rock formation to be found between the oceans, is soon noticed on the left. It consists of two parallel ledges of granite jutting straight up along the mountain side 14 feet apart, and at times 50 feet high. The Thousand Mile Tree—1,000 miles from Omaha—will be noticed near by, with its very distinct label.

CHAPTER V.

UTAH TERRITORY—WEALTH, DEVELOPMENTS AND ATTRACTIONS—THE MORMON CAPITAL.

Having fairly entered the Territory of Utah, we informed ourselves in a general way of its natural features, advantages, etc. Its area is something over 84,000 square miles, or 54,000,000 acres, embracing every variety of mountain and valley scenery, and probably a greater diversity of climate than any region of similar extent east of California. Cultivation of the soil is carried on almost exclusively by the aid of irrigation, the melting snows of the mountains affording sufficient water to render most of the valleys highly productive. The soil is to a very great extent formed of rich washings from the mountains, and consists principally of a gravelly loam. Wheat is the great staple production, twenty-five bushels per acre being the average yield, and sixty to seventy bushels is not an uncommon result in favored localities. Oats, rye, barley and flax are also cultivated with great success, and all kinds of hardy vegetables grow astonishingly large, and of superior quality. No section can surpass Utah in the yield and quality of potatoes. In the semi-tropical climate of southern Utah cotton has been quite extensively produced. During the civil war a considerable quantity of this was exported by wagon over the mountains and plains, 2,000 miles, to eastern states, at remunerative prices. The southern counties also produce figs, madder, indigo, grapes and almonds. Indeed, fruit raising in all the valleys, north and south, is one of the most important items. Apples, pears, peaches, apricots, plums, grapes, currants and other fruits, are produced to such an extent that they have become important items of export to distant states. Stock raising is generally engaged in, and returns large profits.

Mining.—The mountains of Utah are found to contain exceptionally large deposits of silver, lead, copper, iron and coal; and in some localities gold, antimony and cinnabar are present in sufficient quantities to pay for working. Salt is shoveled from the shores of Salt Lake by the ton, and sulphur, saltpeter, gypsum, plumbago, soda, rock salt, marble, slate and limestone are among kindred resources. Utah now claims to be third in the list of states and territories yielding the precious metals. Her ores are generally very easily produced, often lying in largest deposits near lines of her splendid system of railways. They are easily worked as a rule, and dozens of mills and smelters are already in successful operation within a few miles of the most noted mines. Rich discoveries are constantly reported from the more remote districts. Some of these, in the southern portion of the territory, consist of immense deposits of a high grade of silver ores.

Manufacturing.—Utah leads all other territories in the value and diversity of her manufacturing enterprises. Home production has been the golden maxim, and it is doubted whether any community in the land comes nearer perfect independence by producing all articles of common use. Water-powers are unrivaled all over the territory, hundreds of mountain streams leaping from the cañons, and needing only slight expense to utilize them. There are a number of woolen mills manufacturing the fleece from her flocks into fabrics which are not only made up and worn at home, but also find market abroad. Then there are tanneries, shoe factories, foundries, planing mills, fire-brick and tile works, etc., all utilizing home products and stimulating home industry.

Productions and Development in 1877.—The comparatively small beginning made here in the heart of the trans-Missouri region in 1847 has grown and expanded until now the settlements extend a distance of 350 miles north and south, and 250 east and west. The population is estimated at 140,000, an increase of 50,000 since 1870. There are eight lines of railway in the territory, with a total of nearly 500 miles of track. The product of the mines in 1877 is reliably placed at $7,400,000, against $1,300,000 in 1870. Of this amount over $5,000,000 is in silver and $1,600,000 in lead, the other items being gold, copper matte and copper ore. The farm products of the same year were valued at over $10,000,000. Principal among these items were—wheat, 3,750,000 bushels; potatoes, 2,350,000 bushels; hay, 246,000 tons; dried peaches, 1,500,000 pounds; wool, 1,700,000 pounds. Live stock to the value of nearly $2,000,000 was marketed. Considerable wheat is exported, one commission house alone having shipped 100 car loads to Liverpool during 1877. The total productions of the territory for the year are valued at over $21,000,000. These outlines will assist the reader in forming some idea of the wealth latent and developed in Utah.

Climate, Scenery and Game.—Although one may experience the rigors of an arctic temperature on the mountain summits, or the crisp atmosphere of northwestern territories in the elevated valleys, we find in the great Salt Lake Basin a climate mild and agreeable almost the year round. The temperature, according to observations at Salt Lake City, seldom rises above 90 degrees, or falls below zero. Along Great Salt Lake, which has a shore line of nearly 300 miles, and furnishes an horizon like the ocean itself—although 4,200 feet above the sea—is to be found the most peculiar climate in the world, combining, as a local physician says, "the light, pure breezes of the neighboring mountains with that of the briny sea, thus enabling us to inhale a marine atmosphere as soft as on the Pacific shores, blended with a cool, Alpine air." Chronic affections rarely originate here. The climate is an almost certain panacea for asthma, and in cases of incipient consumption has worked wonders. Digestive disorders, nervous affections, etc., are often modified, if not entirely cured. At Camp Douglas, three miles from Salt Lake City, only one death has been recorded in a period of four years, out of an average of 340 residents there. Numerous hot springs, and the waters of the great Dead Sea, afford delightful tonic baths. The hot sulphuretted waters of the springs are proverbially efficacious for rheumatic and blood diseases, while it has been discovered quite recently that salt water bathing in the lake is a positive cure for catarrhal and other affections. The territory is especially prolific in

Fine Scenery.—The greatest mountain-locked lakes are here; the most wonderful and pleasing features of cañon scenery are found in the defiles of the principal streams, and the valleys present most charming rural landscapes. A view of the great Mormon city itself, embowered in foliage and hemmed in by high mountains on three sides, with its enchanting vista of the inland sea, is a picture never to be effaced from the mind. The most interesting point of it all is that all attractions are almost invariably near the line of the Union Pacific or adjacent to its branches and connecting lines, and can be taken in at slight effort and expense by a series of short railway excursions from Salt Lake City.

The mountain streams and fresh water lakes are literally alive with trout, the angler often finding really fine fishing within stone's throw of the railway track. Mountains and forests, farther removed from civilization, and yet of easy access, abound in elk, deer, bears, foxes and beavers. The "grizzly," in all his pristine vigor, can be encountered at various points. The shores of the lakes are favorite resorts for innumerable geese, ducks, swans, pelicans, etc., and most of the streams furnish excellent hunting for that class of game. Sage-hens, grouse and rabbits are found in most of the valleys in great abundance. California quail have been introduced with success, and the prairie chicken has obtained a good start in the valleys of northern Utah.

Certainly a rare combination of wealth and attractions are centered here. The mines, water powers, farm lands and pasturages are not yet half utilized. The beauties of scenery and value of climate and waters are almost unknown to the world. The huntsman and angler have scarcely made themselves manifest. In all of these items Utah stands out fresh, inviting, unexcelled.

Ogden is the western terminus of the Union Pacific, and the first city of note we entered in Utah. It is 1,033 miles from Omaha, 36 miles from Salt Lake City, and 4,340 feet above the sea. From here the Central Pacific Railway leads westward 882 miles to San Francisco, and through passengers change to the silver palace cars of that noted California line. The Utah Northern Branch of the Union Pacific Railway (narrow-gauge) extending northward to Franklin, Idaho, and the Utah Central Branch of the Union Pacific (standard broad-gauge), running southward to Salt Lake City, combine with the great overland roads to render Ogden quite an important railway center. Ogden river has its exit from a lovely cañon in the Wasatch mountains just back of town, and empties into the Weber four or five miles below. The city is thus abundantly supplied with water power, which is to some extent already utilized by flouring mills, woolen mills, and other manufacturing enterprises. The clear mountain water is also led through the streets, and is used everywhere for irrigating purposes. The luxuriance of the foliage, splendid background of the rugged Wasatch range, and the broad, level streets, at once impress us pleasantly upon arrival. The environs are made up of some of the finest grain and fruit farms in Utah. The city claims 6,000 inhabitants, has a number of Gentile as well as Mormon churches, and several public schools. We found first class hotel accommodations at Beardsley's Railroad House, at the depot, where fish and game are nearly always appetizing features of the bill of fare; but the city proper, which is nearly a mile distant, lacks somewhat in this respect.

Ores carrying gold, silver, lead, iron, antimony and tin have been found in the mountains within a radius of ten miles. Vast quantities of iron ore, yielding from 60 to 70 per cent of pure iron, are found within five miles. Sarpy, the great manufacturer of iron and steel, says the magnetic ores here are the finest he has ever seen. The ores have only been utilized as a flux for silver ores at the smelting works thus far, but Ogden people are fairly charged with brilliant iron manufacturing enterprises, which must surely, ere long, be transferred from paper to matter-of-fact realization. The locality certainly presents superior inducements for the investment of capital in this and kindred institutions. A smelter for silver ores was in course of construction during our visit.

Ogden Cañon.—No tourist can well afford to pass this point and deny himself a side trip through Ogden Cañon. A drive of a dozen miles will enable one to view the most interesting features, and this can easily be accomplished in half a day. The scenes are not a whit less grand and beautiful than those of far more famous cañons. The river, a dozen yards wide, two or three feet deep and a perfect mirror of purity, affords every variety of cascade and eddy, of foaming surges against the monster boulders, and of placid pools beneath the shadows of crowding walls. It is alive with the gamiest of trout, and he must be a novice who fails to land plenty of these with tempting bait. Two or three miles up are some warm springs, and half a mile farther, in a pretty little wooded opening, are hot sulphur springs of pronounced value. At some of the narrow points the walls rise up almost vertically to the height of 1,500 feet and begrudge even room for roadway. The tops and sides of the mountains are still ornamented with the deep green foliage of the pines. The road is everywhere romantic in its meanderings at the water's edge or higher up under the very shades of the summits. Five or six miles up you suddenly emerge into a perfect little Eden of a valley, where the walls have retreated somewhat and left room for dozens of picturesque and cosy homes. There is quite a little village here along the river banks, and the inhabitants are certainly to be envied their towering walls of granite, their tree-embowered homes and their royal exit to the world below.

Taylor's Cañon and Water Fall Cañon are also prominent attractions near Ogden. In the latter, we were told, a sheet of water makes one grand leap over the shelving rock into a wild abyss 400 feet below. About twenty miles north of the city, along the Utah Northern Railroad, is a very interesting and valuable group of hot springs. Enough water is emitted to furnish power for a large mill, and runs up in temperature to 136°. It looks perfectly clear, but is strongly charged with iron. Scenery in the vicinity is truly grand, and many cold water springs in the neighborhood add to the attractiveness of the place. A climb up the mountains back of Ogden enables one to get a view taking in thousands of square miles of mountains, valley, and Great Salt Lake. There is a wealth of beauty and grandeur here in the vicinity of Ogden, but we must hasten to our notes leading southward.

The Utah Central Branch of the Union Pacific Railway was completed from Ogden to Salt Lake City in 1870, and was the pioneer of Utah's local lines. Like the six railways which have since been built in the territory it was constructed without subsidy or land grant, the citizens putting their shoulders to the wheel of progress and going to the bottom of their pockets for the necessary funds. Connecting with the Utah Southern Railway at Salt Lake City this forms a straight north and south broad-gauge line along the richest mineral region and through the finest farm and fruit lands in Utah 111 miles in length. This entire line has also been merged into the Union Pacific Railway system, through the enterprise of Mr. Gould. John Sharp, a Bishop of the Mormon

Church, is General Superintendent of the line. We found the road-bed one of the best in the west and the cars models of neatness and comfort—a state of affairs which was readily understood when we noticed the lively freight and passenger traffic and became better acquainted with the officers in charge. The following statement of freight business over the road in 1876 and 1877 will give the reader an idea of the importance of the Utah trade:

	1876.	1877.
Freight received, lb	196,499,010	188,985,005
Freight forwarded, lb	76,978,279	91,794,898
Total, lb	273,477,289	280,779,903

In scanning over the items received we notice that coal, coke, building material and merchandise compose three-fourths of the tonnage, while base bullion and silver ore furnish four-fifths of the tonnage forwarded. The passenger traffic presents an equally gratifying status. Passenger fare, Ogden to Salt Lake, is $2.

Southward from Ogden the road follows along the base of the Wasatch mountains all the way to Salt Lake City. The range is here very steep and rugged and sometimes cleft with great fissures or cañons from summit almost to base. We soon reached the bench lands overlooking Great Salt Lake, and from this moment until we again left Utah were treated to never-ending panoramas of the American Dead Sea, its almost "thousand isles," and its depths of mirrored mountains. Kaysville, 16 miles; Farmington, 21; Centerville, 25, and Wood's Cross, 27 miles from Ogden, were passed in rapid succession. They are the villages of thrifty Mormon farmers, usually almost buried in foliage, orchards and grain fields, and nestled under the sheltering walls of the Wasatch, with the glorious vista presented by the lake in front. With these great mountains rising up over the picturesque settlements on our left and the irregular shore line of the lake in almost constant view on our right, the vision was constantly strained and still unsatisfied. Near Kaysville the farmers have developed something new in agriculture—new in this region at least. There are here and elsewhere vast tracts of "desert lands," or lands which are so high above the stream that they can never be irrigated. Several years ago wheat was sown upon small patches of this seemingly arid and valueless soil. A tolerably fair crop was raised without artificial moisture or unusual rain, and now broad areas of this kind of land are being put under cultivation annually, producing as high as twenty bushels of wheat per acre. These are really warm alluvial soils formed by the crumbling of mountain ranges.

SALT LAKE CITY.

Thirty-six miles south of Ogden and 1,069 miles from Omaha is the beautiful "City of the Saints." It has an altitude of 4,261 feet above the sea, or 43 feet above the great Lake. In claiming 30,000 population for it the citizens can scarcely be called extravagant, for indeed you hardly know when you enter or leave it. Coming or going in almost any way you penetrate, upon the outskirts, blocks upon blocks of cottage homes, each with its masses of flowers, its plots of rich green vegetables, and its graceful clumps of trees bending under the weight of luscious fruits. It is indeed the city of cottage homes, and it is declared by good authority that the number of people who own the houses they live in is here greater in proportion to the population than in any city of the Union. Many of these within the city limits subsist entirely from their own fertile little truck patches, which lend a rural air to their homes. The city is one perfect mass of foliage, blooming and blossoming "as the rose," where thirty-five years ago were only the sage-brush brakes and bench lands of the new edition of Jordan. Rows of giant elm, mulberry, locust, or other varieties of shade trees now follow all the streets far out through the suburbs, and are continually refreshed by streams of pure mountain water which ripple musically along the broad sidewalks everywhere. It is the universal edict of travelers that only one or two cities on the continent of like size command such unvarying charms and interest for oft-repeated visits. You might become almost tired of the world and vote every other resort a bore, but Salt Lake scenery, Salt Lake atmosphere and Salt Lake life would hold you with their pleasing peculiarities to visits twice a year for many years at a time.

To start with, the city won our heartiest admiration for the charms nature has lavished. Spurs of the Wasatch mountains rise up to great height a few miles distant on the east and north, the site sloping gently to the south, and there being washed by the waters of the Jordan. North of the city the mountain of the Prophecy—said to have been shown to Mormon leaders many years ago in a vision—towers grandly above the heights surrounding. West of the city, twelve miles, rise rugged ranges, marking the shores of the great Lake; and southward are the royal landmarks of the Wasatch range, Twin Peaks. Of course the chief attraction, Great Salt Lake, is always visible from elevated portions of the city, its bright bosom and crystal depths, constituting an eternal mirror for the glories of the mountain summits surrounding. Such views! and then a perfect network of drives among orchards, beautiful lawns and pretty rural homes, over hard, dry roads, are pleasures not to be overlooked. Then Salt Lake hotels greet the stranger with such an inviting and home-like air that he is constrained to call them "home," be his stay for a week or a month. There are several first-class houses, and any quantity of good comfortable places of lesser pretensions. Of course the "Walker House," G. S. Erb, proprietor, leads all hotels between Omaha and San Francisco in points of size, elegance and merits of *cuisine*. It is supplied with an elevator, water and gas on different floors, and is a model of convenience and system generally. The "Townsend" is another house here ranked as first-class. The rates of these are only three dollars per day. Of the second-class houses the "White House," "Clift House," and "Valley House," can all be recommended. Their charges are two dollars and two dollars and a half per day.

The Sulphur Baths.—Being comfortably domiciled, a bath in the famous warm sulphur springs, inside the city limits, is a proper luxury to indulge in. Street cars lead from all hotels to the bath-houses, as well as to other points of interest in the city; uniform fare, ten cents. The lukewarm waters are emitted in great quantity—10,000 gallons per hour—at the foot of a spur of the Wasatch, and are led directly into three or four large bath-houses. The temperature ranges from 95° to 104°. Here we found the great plunge or swimming bath, a ladies' swimming bath and a smaller institution of the same sort for boys. In addition there are small rooms where the tub and shower-bath can be enjoyed privately, and Turkish, hot air and Russian baths to suit special cases. The pure warm sulphur water is constantly flowing through these apartments, so that there is the great merit of freshness and cleanliness to start with. But how can we describe the delicious sensations produced by a plunge in the waters of the great swimming-room. No bath could afford a more delightful feeling of ease, or impart a more healthy glow and animation to the whole system. Fifteen minutes here of splashing and diving and kicking up the great white flakes of sulphur which have formed upon the perfectly smooth floor, are worth a hundred-mile trip—yes, a thousand, if such priceless luxuries were not so thickly distributed among our western mountains. Parlors, waiting rooms, and refreshments are not wanting; and the grassy lawn with its noble trees, render the spot one always to be remembered with pleasure. In these springs alone Salt Lake City possesses a luxury and an attraction which in years to come will add thousands to her number of visitors. Following is an analysis of the waters as given by Dr. Charles T. Jackson, Chemist and Geologist, of Boston:

"Three fluid ounces of the water, on evaporation to entire dryness in a platina capsule, gave 8.25 grains of solid, dry, saline matter.

Carbonate of Lime and Magnesia	0.240	1.280
Per Oxide of Iron	0.040	0.208
Lime	0.545	2.907
Chlorine	3.454	18.421
Soda	2.877	15.344
Magnesia	0.370	2.073
Sulphuric Acid	0.705	3.748
	8.229	43.961

It is slightly charged with Hydro Sulphuric Acid Gas, and with Carbonic Acid Gas, and is a pleasant, saline, mineral water, having valuable properties belonging to Saline Sulphur Springs."

A mile farther north, also right at the base of the mountain, are the *hot* sulphur springs, which must never be overlooked. We emphasize the word hot because the water spurts out with great force at a temperature of 200° or more. Eggs thrust into the pools boil in about regulation time, and meat can be cooked thoroughly (and seasoned, too!) in an incredibly short period. Flowing out into the meadow near by the water has formed a pretty little lake, called Hot Springs Lake, a strange feature of which is the fact that trout and other fish have been seen in it, apparently flourishing in the tropical and sulphur-scented waters. Large volumes of steam are often noticeable over the springs and along the stream. The following is an analysis of these waters:

Chloride of Sodium	0.8052
" " Magnesium	0.0288
" " Calcium	0.1096
Sulphate of Lime	0.0806
Carbonate of Lime	0.0180
Silica	0.0180
	1.0602

Specific gravity, 1.1454.

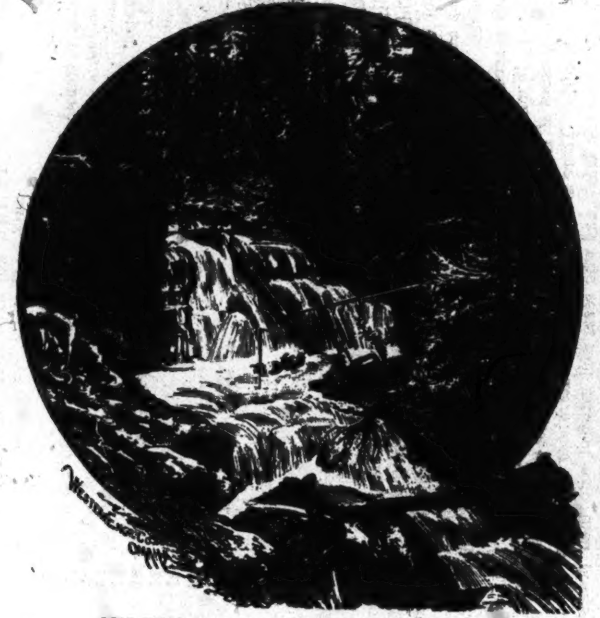
Two miles east of the city, and on high bench land overlooking it, is Camp Douglas, one of the best built and most beautifully located of all our military posts. Quarters for both officers and men are solidly constructed of the handsome stone found in the mountains near by, and all have a never-failing supply of the purest of mountain water from Red Butte Cañon. A few miles below is Emigration Cañon, the entrance to which is only four miles from the city. Besides abounding in scenes of the wildest grandeur, it possesses great interest from the part it has played in Utah history. It furnished the first highway for the Mormon emigrants when they entered the valley thirty years ago, and founded the new Zion. Still, a few miles below, and six miles southeast of the city, is Parley's Cañon. The scenery in this is especially bold and impressive, the mountain sides of the pass rising with wild abruptness from extremely narrow gorges, and ornamented on their summits with maple, oak, pine and other graceful shrubbery. This leads to Parley's Park, and was the regular overland stage route before the iron horse made his appearance in these western wilds. Twenty miles up this cañon is Park City, and the famous "Ontario" silver mine. This mine has risen so rapidly in the estimation of experts within the past year that it is really claimed to be only second to the great "Comstock" of Nevada. The "Ontario" produces $6,500 per day, month in and month out, and declared dividends of $50,000 per month in gold coin every month of 1877, besides paying for the building of hoisting works, mill, and the usual heavy mining expenses. $2,000,000 worth of ore were still in sight in January, 1878. In 1877, $2,195,280.80 worth of silver bullion were shipped. Tourists who cannot visit the mines should drop in at the Wells, Fargo & Co's office, at Salt Lake City, and see the beautiful silver bars which arrive by stage as regularly as clock work every day in the year. Mountain streams here are full of trout; elk, deer and bears are plentiful high up in the ranges surrounding, and there are many marvelously rich mines. A week's jaunt here would be amply repaid. Daily stages; fare, $4. Hotels, $2.50 per day, and plenty of cosy rural homes in the Park where accommodations can be obtained still cheaper.

But, eager to view the mountain fastnesses, we "ran away with ourselves" without taking a thorough look at the city. The Tabernacle and unfinished Temple being centrally located, are generally first to be visited. The Tabernacle is 250 × 250 feet, 80 feet to the roof, which is oval and without central support, and there are 20 doors calculated to permit an exit of 12,000 people in six or seven minutes. The great organ, constructed entirely in Utah, and principally of Utah woods and metals, is 58 feet high, and contains 3,000 pipes. We took a three minute walk inside of this mammoth instrument to obtain a correct idea of its size, and must confess to no little astonishment. The Endowment House of which so much has been written, is in the same inclosure. The Temple, near by, was commenced a quarter of a century ago. If ever finished, it will be 200 feet high, of proportionate size, and wonderfully massive build. The granite for this is now carried direct from the quarries to the building by the railway, but for many years the immense blocks, weighing from five to ten tons each, were hauled thither by ox teams. The quarries are some 20 miles distant at the mouth of Little Cottonwood Cañon.

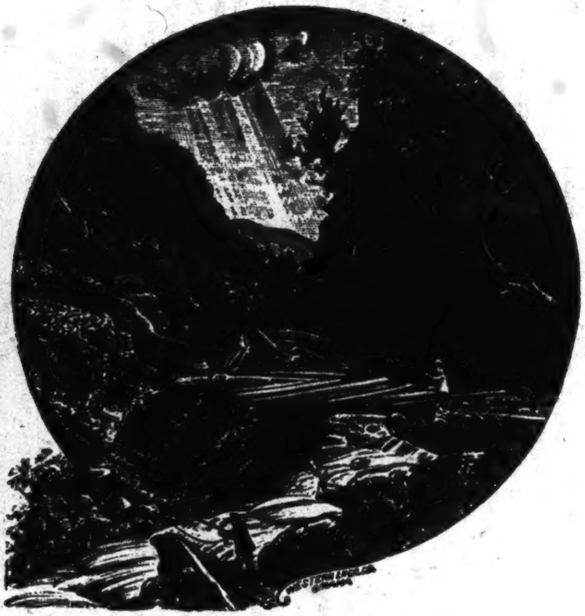
The Museum is just opposite the Tabernacle, and is what it represents to be "Utah at a glance." Mineral specimens from Utah mines, and the products of Mormon industry are worthy of especial notice. Within a stone's throw are the former residences of Brigham Young, "Amelia Palace"—the elegant abiding place of the lady who in later years has been called the Prophet's favorite wife—and the mammoth "Co-op" store. This institution bears the sign, "Holiness to the Lord, Zion's Co-operative Mercantile Institution," as do others in the city, and mingles a vast deal of business enterprise with its devotion to the Lord. It is 300 feet long, 45 feet wide, three stories high, and crowded with every conceivable line of merchandise. It carries a stock of $750,000 and pays freight on goods to the amount of $250,000 per annum. A drive about the city discloses many elegant residences with beautifully laid out lawns, flower and fruit gardens. One can often see in the same inclosure the apple, pear, peach, apricot, plum, grape, and other small fruits thriving luxuriantly. Large rows of splendid business blocks, a fine system of water works, gas and every kind of manufacturing enterprise in full blast, are a few of the evidences we saw attesting the prosperity of the beautiful city. Three daily papers—the *Tribune*, vigorously Gentile, *Herald*, liberal, and *News*, the devoted organ of the Mormon Church, are published here. Four or five railroads really concentrate here, and Salt Lake is to all this great interior basin what Denver is to its grand scope of tributary country. Its resources in mines and farming lands are incalculable; while its exquisite charms for those in quest of health or pleasure are matters of world-wide acknowledgment.

Big Cottonwood Cañon.—A pleasant two or three days' trip off the beaten line of railways, is to Silver Springs, a favorite summer resort in Big Cottonwood Cañon, 24 miles from the city. It is the heart of the Big Cottonwood silver mining district, and is approached by a mountain road which has few superiors for picturesqueness. Silver Lake, five miles from the village, is one of the chief attractions. It is one of the handsomest of all our mountain-locked sheets, has facilities for boating and affords excellent fishing. At Argenta, Silver Springs and Brighton's are quite good summer hotel accommodations. The great Carbonate mine, which is in itself a mountain of ore, yielding as high as $65 per ton in silver and 90 per cent lead, is located in the neighborhood. Many other good mines are also found here. There are tri-weekly stages; fare from Salt Lake, $3.

Railway Excursions.—Leading southward from Salt Lake City—a continuation of the Utah Central Railroad—is the Utah Southern Branch of the Union Pacific. It penetrates the best mining and agricultural section of central Utah, and controls the freight and passenger business of the southern part of the territory and southern Nevada, and, with connecting narrow-gauge mountain lines, affords easy access to the finest pleasure grounds. York, 75 miles south, is the temporary terminus. The road follows the thickly settled Jordan valley nearly all the way to Utah Lake, and then continues its southward course through the beautiful villages lying along the eastern shores of that lovely sheet. The giant peaks of the great Wasatch range lie close along the road on the east, so that the traveler has an unending panorama of lake, valley and river on one hand, and of the snow-covered mountain summits and timbered foot-hills on the other. Although the line drains a wide scope of wonderfully productive country on either side, and has already worked up an immense carrying business, an early extension to the great mining and semi-tropical districts of southern Utah will increase the traffic incalculably. During 1877 there were, in round numbers, 100,000,000 pounds of freight forwarded, and 150,000,000 pounds received by this road. Following are stations, distances and fares from Salt Lake City:



DEAD MAN'S FALLS, LITTLE COTTONWOOD CANON, UTAH.



NEAR HIGH BRIDGE, AMERICAN FORK CANON, UTAH

REACHED VIA UNION PACIFIC RAILWAY, UTAH SOUTHERN BRANCH.

Stations.	Distance.	Fare.
Little Cottonwood	7	$ 50
Junction	12	75
Sandy	13	1 00
Draper	17	1 25
Lehi	31	1 75
American Fork	34	1 90
Pleasant Grove	37	2 00
Provo	48	2 50
Springville	53	2 75
Spanish Fork	58	3 00
Payson	66	3 50
Santaquin	71	4 00
York	75	4 00

Bingham Cañon and Camp Floyd Railroad.—At Junction, 12 miles south of Salt Lake City, this narrow gauge line puts out from the Utah Southern for the Bingham Cañon gold and silver mines, about 20 miles distant on the right. This is one of the most important of the narrow gauge feeders referred to, as it not only brings down more ores than are produced by any other camp in Utah, but also carries up great quantities of miscellaneous supplies for use in the mines. The road carried 127,206,672 pounds of freight in 1877, and as its operating expenses are very light, must be first-class paying property. Bingham station, 16 miles from Junction, is the present terminus of the road, and the mining camp of the same name, is strung along the cañon above for a distance of two miles. There are about 2,000 residents whose habitations are crowded closely along the creek, and who seem well satisfied with their possessions in the grand old hills overlooking. This is the oldest gold-mining camp in Utah, and the deep gulches are still paying good wages to claim-owners. About half a million dollars in gold were taken out previous to 1877. Quartz mining is the great industry, however. Many mines are rich in both gold and silver. We explored the underground wonders of the famous "Telegraph" lode, and were astonished by its prodigious dimensions and splendid state of development. Immense timbers supported the weight of the mountain over our heads as we walked through the thousands of feet of worked out "drifts." Here and there the glittering mineral vein was plainly revealed by the light of our candles, and nearly 100 workmen were hammering away at the coveted mass which, in 1876–7, yielded over $1,000,000. Tramways convey the ore from this and other mines down the steep mountains to the railway, where, by an ingenious contrivance, it is instantaneously dumped into the cars there waiting. It is then shipped to the smelters in the valley, about 20 miles below.

Comfortable narrow-gauge cars convey the passenger to within two miles of the most noted mines, and then he can enjoy a novel ride by mule power on the tramway which zig-zags up the mountains and along the gulches, to the very silver veins themselves. Fare from Junction to Bingham, $1.

Wasatch and Jordan Valley Railroad.—Thirteen miles from Salt Lake City, on our southern trip, we found Sandy, where this narrow-gauge line branches off into the Wasatch mountains on the left. This is the route to the famous Little Cottonwood mining district, 20 miles distant, where the Emma, Flagstaff, and other mines of world-wide reputation are located. As may be imagined, there is plenty of business for the well-appointed rolling-stock. About 70,000,000 pounds of freight, and 11,500 passengers were carried during 1877. That readers may judge of the part these little, cheaply operated lines off in the western mountains take in the world's progress, we append a statement of comparative receipts of the Wasatch and Jordan Valley road for the past four years, the capital stock being $500,000:

For 1874	$38,000
" 1875	54,000
" 1876	116,000
" 1877	150,000
Earnings for four years	$358,000

Trains on all these side lines run in such a manner that the tourist can leave Salt Lake City in the morning, go up into the mountains for from three to six hours, and returning, catch the afternoon train of the Utah Southern, reaching the city again in ample time for supper. This road follows up the Little Cottonwood valley about ten miles, and on into the cañon two miles farther. A prominent land-mark at the mouth of the cañon, and one affording a glorious view of valley and lake below, is Humphrey's Peak, named in honor of Ezra Humphrey, Esq., the superintendent and guiding spirit of these narrow-gauge railroads. Here are also the great quarries which furnish granite for the construction of the Mormon temple.

Two miles inside the picturesque gorge we were transferred to the odd means of locomotion already referred to as the tramway. The passenger cars are open, seat about eight persons each comfortably and look very much like the old-fashioned sleds of the East. The track is laid almost as substantially, and quite as carefully, as that of the steam railway. The engineer is employed with direct reference to patience, sobriety and mule-conquering powers, and must man the brakes as though the coming of the millennium depended upon the result. He is conductor, brakeman, engineer and fireman combined, and his knowledge of tramway details must be such as few average minds can comprehend. All being ready, the whip whistled, the mules brayed, and we were off and *up*. In seven miles we climbed 3,000 feet toward cloud-land. This was through the land of snow-slides, and the track was housed in by substantial snow-sheds nearly the entire distance. Of course the scenery, from our point of view, was not particularly lovely, inspiring, or even interesting, but the inner architecture of our snow-shed was. You may travel round the world, reader, and study styles of architecture with religious devotion in every clime, then wind up your journeyings in this Utah snow-shed, and regretfully acknowledge that you might have here found all of them—yes, a good many more—under one narrow but tremendously long roof. Timbers of prodigious size, stretches of solid masonry on either side, and millions of feet of pine planks were component parts, and they were joined in every conceivable manner. Here our narrow path lay close against the masonry, and our massive roof sloped off abruptly toward the gulch like that of a shed, so that the vast accumulations of snow coming down like lightning from the mountain-tops could slide over us; there our temporary shelter running up sharp like the letter A, and again the structure widening out to quite respectable dimensions. Occasionally we halted to view the devastating effects of the terrible snow-slide which had swept down before the advent of this great snow-shed. The iron rails had been twisted and doubled as if they had been the most flimsy wire; trees were uprooted and rendered mere driftwood in the bottom of the gorge, and monster boulders were intermingled in the general *debris*. Looking 2,000 feet above whence the mountain of snow had come, we could see the clean, narrow path—generally only about 100 feet wide—which had been left from summit to base as a memento and warning. Dozens of miners lose their lives every winter in the Little Cottonwood district, by the awful avalanche, but the secure housing of the tramway has lessened the danger to travel very materially. Of course openings occur here and there, where the lover of sunshine can step out and view the glories of cañon scenery. At each of these one feels amply repaid for the moments of suspense and shadow inside. We should not forget to tell, however, that at some of these points the cañon is so deep and narrow that it is without sunshine for five months of the year.

Among the Silver Mines.—Twelve miles up the cañon we stepped out of our wooden tunnel and looked down upon Alta, the business center of the Little Cottonwood district. The town contains about 1,000 inhabitants; is right at the head of the cañon, and is overlooked by mountains full of rich silver mines. We were on Emma hill, and about 100 yards distant was one of the entrances to the famous "Little Emma" mine, while within a few feet was the tramway down which the ore of the "Flagstaff" poured into the little square box cars.

The "Emma," which in its palmy days yielded a million dollars or more, is again being vigorously worked, and residents have great confidence in its soon becoming as lavishly productive as before. We notice that foreign mining corporations are nearly always unfortunate in selecting their managers. The mines are often first-class, but the management notoriously third-rate in point of ability, or else absolutely knavish. Stockholders are thus constantly bled from one cause or the other, and our best mines are called worthless by capitalists across the water. About the next thing we learn is that the property is sold at a sacrifice, bought up by experienced American miners, and straightway pours out its hidden wealth. The "Flagstaff" has produced enough to have enriched two score of men, but we were told has also been made to destroy much London confidence by its unfortunate management. Other great producers here are the "Nabob," "Alta Consolidated," "North Star," and the "Kate Hayes."

A still more novel affair for the transportation of ore than the tramway, is the "drag," which is used among the high ranges here quite generally. It is made of a fresh ox-hide, sewn together at the ends, an aperture being left in the middle for the reception of the ore, and looped up with ropes when the "vehicle" is loaded. An iron brake, with long, sharp teeth like those of a rake, is fastened to the tail, and the mule's traces are connected at the other end. Fifteen hundred pounds of ore can be hauled in one of these over the snow and ice-covered trails of the steepest mountains. We saw these contrivances coming down from the mines in every direction and depositing their loads at the tramway. If from the steepness of the trail the "drag" threatened to slide upon kicking heels, the engineer straightway jumped upon the brake and sank its teeth into the snow. There are few camps which can be more easily visited than Alta. The mines are among the richest in the west, are systematically worked, and present many interesting features for the eyes of the tourist. A comfortable mountain hotel is found here; rates, $2 per day. Fare from Sandy to Alta, $2.

Mule power carried us slowly up; gravitation whirled us and the mules quickly down. The engineer, conductor, brakeman, etc., tied his mules at the rear end of the car, took his accustomed seat and unloosed the brake. If we thought his position responsible before, it was tenfold more so now. The down grade was terrific — at places 600 feet to the mile — and some of the curves were nearly as short as those of a serpent's trail. Heading straight for mountain walls one moment, we were bearing down upon the grotesque walls of human architecture the next. In the one case a sudden parting with the track would have resulted in sure annihilation to us; in the other, some Moorish, Gothic or Roman specimen of architecture would have received a shock which would have broken the heart of its designer. An ore train passed down about the same time. Two cars were always coupled together, and controlled by one man, who sat on the rear one. This seemed an easy solving of the transportation question, and it is indeed wonderful what an amount of ore pours quietly down over this little road in the course of the year. Over 50,000,000 pounds of ore were transported in 1877. Going up requires three hours' time; going down only one — and the down trip to Sandy is over only too soon.

Sandy is the Swansea of Utah. Here are the busy smelters, which feed on silver ores from the mountains and iron ore from the valley. Dozens of stacks point high toward the sky, filling the clear atmosphere with black, sulphur-scented clouds in the daytime, and breathing great blasts of red flame into the darkness at night. Hundreds of grimy men watch the furnaces, and have built up a thriving village by their industry. The different railways are always crowding heaping cars of ore at the platforms, or are shipping away tons of the concentrated bullion. There are about half a dozen of these smelters and sampling works in this vicinity, and they have really only commenced to consume those mountains of ore which rise up so majestically fifteen miles away. Great warehouses full of ores of every grade line the track of the Utah Southern. Splendid farms line the Little Cottonwood above and the modern Jordan below. Thus these widely different interests are stalking along side by side, each stimulating the other by its own needs. At different stages of our journey in Utah we were struck by this admirable facility for exchange. The Mormon farmer at the base of the mountains fills his wagon with potatoes in the morning, is in the heart of a rich mining camp by noon, sells his load and returns to his fertile patch by night. This accessibility reduces operating expenses at the mines to the minimum, and yet enables the farmer to dispose of his produce at good living rates. It is said that expenses of living in the mining districts of Utah are lower, and the style of living better, than in any gold or silver mining region of America. The choicest fruits, the best vegetables, the finest products of the dairy, are found almost within sight of the mines.

Utah Lake.—Seventeen miles south of Salt Lake City is Draper, a pleasant little village in the eastern edge of Jordan Valley. The valley is here some ten miles wide, and thickly studded with orchards, grain fields and neat rural homes. A few miles farther on the road ascends to the upland separating Salt Lake Valley from that of Utah Lake. From different points as we whirled along the brink of this high bench land a scene of surpassing loveliness burst upon us. Utah Lake with all its indescribable beauty of overhanging mountain tops, rocky promontories and intervening slopes of fertile lowlands seemed to lie directly in our pathway. Where the shore-line is not too rugged on the north and east, Utah's richest farmlands run to the water's edge, and pretty villages lock arms at almost every step. The great southern landmark, Mount Nebo, rising 12,000 feet above the sea, terminates the view southward, and is a fitting sentinel over the enchanting panorama at its base. On the west side of the lake rises the "Lake Range," in which rich silver mines have been discovered. Utah Lake is thirty miles long and about six wide. It is fed by such clear mountain streams as Provo river, American Fork, Spanish Fork, Hobble, Peatneet and Salt Creeks, its outlet being through Jordan River northward into Salt Lake. Utah Lake is about 500 feet higher than its great northern neighbor. We had now left the valley of Salt Lake behind, and had fairly entered that of Utah Lake.

Lehi, 31 miles south of the city, is the next important point passed. It is the center of a fine agricultural settlement numbering 1,500 people. We noticed large quantities of wool, hides and other rural productions awaiting shipment here. West of Lehi 12 miles is Cedar Fork, a village of 200 people. Large quantities of charcoal are produced there. Tri-weekly stages, carrying mails, run thither; fare, $2.

American Fork, 34 miles, is a thriving farming community, with fine stretches of meadow fringing it and skirting the beautiful lake below. The population is about 1,000, and the people nearly all busy themselves with their fertile farms or fruit orchards. Dried and green fruits are shipped from here by the ton, and great quantities of hay are cured for the northern markets. We learned that American Fork was the first town in Utah to establish free schools. The American Fork railroad here branches off to the noted cañon whose opening lies three or four miles east of the city.

AMERICAN FORK CANON.

If the tourist can visit but one point in Utah, let him by all means make that one object American Fork Cañon. There is nothing like it accessible from the Union Pacific Railroad, or elsewhere that we know of. Leaving Salt Lake City early in the morning, by the Utah Southern, the visitor reaches American Fork Station by nine o'clock, and finds the little cars of the American Fork Railway, — which are soon to look like toys among the towering walls — ready to commence the mountain trip. The track follows the pretty stream directly toward the mountains for six or seven miles. Entering the Cañon the wildest of all wild scenes bursts upon the eye. The change from the broad valley to the narrow and wonderful gorge comes with such abruptness that there seems to be no middle ground. With further progress the awful height increases, and the fantastic grouping grows indescribably weird. One thousand, two thousand, *three thousand feet!* rise the pine-crowned battlements until the eye is fairly strained with searching out the glories of the summits.

The coloring of the rock strikes the observer no less than their ever-changing forms. A very deep red and brown are the prevailing shades, but these are varied, brightened, intermingled, until we fancy a kaleidoscope of colors, as well as of figures. Here the red pales to a beautiful pink; there the shadows deepen it to a royal purple, and tracings of the huge

LITTLE ZION VALLEY, SOUTHERN UTAH.

HANGING ROCK, AMERICAN FORK CANON.

REACHED VIA UNION PACIFIC RAILWAY, UTAH SOUTHERN BRANCH.

rock yonder are almost black. Heat, intense heat, has melted these grand old mountains, and awful convulsions have thrown and twisted the molten mass into some of the mightiest walls and most wondrous formations known in all the Rockies. Lest we may be called too enthusiastic we give place for the outburst of a fellow-visitor: "The cliffs on either side rise 3,000 feet above the torrent which roars down beside the railway. Such cliffs! Such rock formations! The strain of the rocks twisted, gnarled, distorted into every conceivable shape. Here is a mass seeming like the fibre of some colossal tree which lightning had taken hold of and wrenched and burned to a ghastly cinder; there a huge overhanging mass, weighing millions of tons, composed apparently of segregated fragments, all threatening to fall and ruin. High up in the air crests and ridges of limestone and granite assume the strangest forms. Towers, battlements, shattered castles and the images of mighty sentinels exhibit their outlines against the sky. Where the rocks do not deceive the eye with phantasies they are stained with rich, stern colors, like those which adorn the cliffs which rise above the profound abysses of the great Colorado ravine. Eyries of eagles are pointed out by the conductor, and there up high above the loftiest crag soars an eagle, scanning with contemplative eyes the little railway train struggling up the Cañon 5,000 feet below his flight. Some eight miles from the mouth of the Cañon, and 3,000 feet above its bed, there is an arch through the rock at the summit, on the north side, through which the blue sky is seen. This arch, called the Devil's Eye, seems about as big as a man's head. It is fifty feet high and eighteen feet wide. Over it stands a tree, which appears like a stunted bush; it is seventy-five feet high, and its topmost branches are favorite perches of eagles."

Half way up the Cañon the baby train passes under Hanging Rock. It is literally a mountain of rock projecting out toward the stream twenty feet beyond the perpendicular. Looking upward out of the window, opposite the rock, we could see its edge covering more than the width of the track, its millions of tons of weight threatening to grind such frail work of man to powder. Under an immense mass of granite, to the right, was a cave that looked as if it might have been carved by the chisel of some Titan of past ages. Opposite was a colossal amphitheatre with walls on three sides, 2,000 feet high, its arena crowded with nature's gladiators, bold crags and flinty points, and its heaven-piercing summits richly clad with the evergreen pine and spruce. A feature welcomed here is the luxuriant vegetation, which in other cañons is so often totally lacking. Jagged walls and other formations which need toning down, are often clad with richest verdure. Here and there, under the shelter of overhanging rocks, were the camps of enthusiastic visitors. Often we leaped the beautiful torrent by a spanning bridge; then soon again found the crystal waters washing our solid parapet. The track was crooked, as are most railways in the mountains, and just when we least expected it, some vista of entrancing beauty and splendor would suddenly burst upon us. Among the figures resembling the animate was one looking like a gigantic lion, not "ready for the leap," but reposing gracefully on his royal pedestal five hundred feet above, like the king of beasts alone can. Beautiful springs send their clear waters over the rocks and under the ferns and cresses to the creek at different points. Deep, dark eddies which we know are full of trout, noisy cascades over shelves of rock, and often masses of richest foliage shading the more quiet depths, are features of

"American Fork," which will come back to us for years with the most delicious zest.

Nearing the head of the Cañon we passed the "Old Mill." The wilds in this case only needed such a musty and decayed old monument to set off their glorious charms. We passed at the base of a high dome of rock with the tottering, moss-covered frame of the old saw-mill on our left. A mass of verdure and network of undergrowth creeps over the foundation, graceful trees crowd around, and the stream here mingles its sweetest ripple with the sighing of the pines among the rocks above. The loveliness of this scene defies, yes shames, description, and we doubt if another in all the west appeals more strongly to the admiration of the lover of nature.

The mountains now lessened in size and grew less rugged. Soon we reached Deer Creek, 16 miles from American Fork station, and the terminus of this grand piece of railway engineering which enabled us to pass up through the magnificent panorama in two hours. We had ascended 5,000 feet in sixteen miles, or at the rate of over 300 feet to the mile. At Deer Creek a sawmill was turning out 8,000 feet of lumber per day, and ten charcoal kilns were producing 3,000 bushels of fuel per day for the smelters below. The mountains above are full of silver mines. One of these, the "Miller," was at first so wonderfully rich that the American Fork Railway was built at an expense of $400,000, purely to carry out the stream of rich ore, and to assist in the development of other mining enterprises. The vein is not worked so vigorously as in earlier years, and the builders of the road perhaps little thought of the thousands of eager pleasure seekers who were to soon pronounce its pathway one of the finest in the world. But other mines are being worked near Deer Creek, and the interest is growing in importance so rapidly that the product of these will soon give the road all the tonnage its projectors had hoped for. The "Wild Dutchman," "Silver Lake," "Pittsburgh" and "Bullion" are the prominent mines developed.

The descent of the Cañon is even more sublime than the upward trip. Our locomotive was left behind, and we finished one of the grandest rides of our lives simply *by the power of gravitation.* Going up, the pant and effort of the powerful little locomotive, the hiss of steam, and rattle of wheels, alone attracted our attention from the ever beautiful surroundings. Coming down even this feature was missed. Gliding quickly downward, we made our way so noiselessly that even the birds could know the difference, and greet us with greater freedom. Round the curves, over the rushing waters, and amid all those indescribable byways, we silently descended. Passing in review that multitude of attractions, which had been so admired from below, we confessed that all was again new, and that the only way to thoroughly appreciate cañon scenery was to watch with all eyes *while going down.* We caught our best views of Mount Aspinwall—a splendid landmark to the south—on our downward course. And we spied out hundreds of fascinating camp-grounds, inviting little groves, and glorious points of view for those who like to climb, on that exciting plunge to the valley. Mountains all looked higher, the Cañon deeper, and the grade far more precipitous, than when gazed at from below No less a personage than the late Canon Kingsley, of England, pronounces this locality "the rival of the Yo Semite," and another great traveler, in speaking of the downward trip through the Cañon, says: "It is the grandest of all railway scenes the tourist will ever witness."

Arriving at American Fork station in time for the north-bound train of the Utah Southern, visitors reach Salt Lake City in time for supper. Excursion tickets are sold from Salt Lake City to Deer Creek and return at $3.50. A comfortable hotel is found at American Fork Station; rates, $2 per day.

Now again southward over the Utah Southern. Still keeping the silvery sheen of the great fresh water lake in full view on our right, and the rocky heights of the Wasatch overlooking on the left, we soon passed Pleasant Grove. It is another of the many pretty rural pictures found everywhere in Utah, and the small collection of homes is almost buried in the foliage of box-elder, locust and cottonwood. A fight which settlers had here at an early day with Ute Indians had given the place the name of Battle Creek, but that title has long since been abandoned.

Great Irrigating Enterprises.—Proceeding southward again from American Fork station, we crossed a ten mile stretch of comparatively unsettled valley lands. These, and thousands of acres more of lands as rich as any in Utah, are soon to be utilized, as great irrigating canals are being led from the head of the Jordan (its point of exit from Utah Lake) out over the high bench lands and along the Wasatch mountains, for a distance of 25 miles toward Salt Lake City. A canal 25 feet wide and 30 inches deep is being taken out on each side of the river, covering some 50,000 acres of hitherto worthless lands and rendering them abundantly productive.

Provo.—48 miles south of Salt Lake City is Provo, the commercial and manufacturing center of Utah Valley. It has a population of 4,000, and is beautifully located on the south side of Provo river near the base of the mountains. The woolen mills here are the most extensive between the Missouri River and the Pacific coast. There are four large buildings belonging to one corporation which, with the machinery, cost $250,000. 3,240 spindles and 125 looms in this institution consume 3,000 pounds of wool per day, and in 1877, the net profit was $50,000. Yarns and woolen goods of superior quality from these mills go to all parts of Utah, and are worn by the Mormon farmer and Gentile miner alike. There are also three extensive flouring mills, sawmills, and other manufactories here, all utilizing the splendid water power afforded by the river. "Brigham College," founded and endowed by Brigham Young, is one of the most noticeable public institutions. Hotels are small here, but afford very good accommodations at from $2 to $2.50 per day.

Provo Cañon.—One of the finest drives in all Utah is that of Provo Cañon. Provo river has a most singular exit from the towering Wasatch range, six miles east of the city, and its course above is little less attractive. From the splendid carriage road, which curves gracefully under the cañon walls far above the stream at the entrance, the rocks on either side look as if they might have once been giant buttresses of solid masonry, formed by human hands, and offering no possible outlet for even the tiniest rivulet. It is not hard to fancy that the mountain torrent which now so grandly fills the gash, here gathered all its strength and with one wild sweep burst through, carrying fertility and beauty to thirsty lands below. Passing upward, the road is always in sight of the stream—sometimes cut in the mountain side and often following at the water's edge. Alternating with the deep and narrow defiles are numerous little park-like openings, which seem especially designed for the noonday lunch, or the more permanent camp ground. As the cañon walls sometimes rise perpendicularly 1,500 feet, there is wildness and beauty combined and richly lavished within the smallest bounds. Eight miles up the Cañon is a series of half a dozen exquisite falls. These drop from twenty to twenty-five feet each from ledges of rock into basins they have long since worn smooth and wide. The lower one, the "Bridal Veil," is alone an entrancing sheet, the entire volume of the river descending in a broad, regular body and covering the dark granite below with flakes of foam. We are told of a side cascade of 1,800 feet, which must be a rare attraction. Trout are very plentiful. Heber city, 20 miles from Provo, is reached through this cañon. It is the centre of a large and flourishing agricultural community in the upper Provo valley.

Three miles from Heber city are found a group of hot wells which form a great natural curiosity. There are about fifty of these wells running from five to fifty feet in diameter. The waters, as they have been forced out at the top, have formed wonderful rims of limestone from 20 to 100 feet in height. In some of these, water of beautifully varied tints can be seen rising and falling as though propelled by a mighty force from below. Sticks thrown into the water are speedily encrusted with the lime and other substances held in solution. Several of the wells are dry and so great is the deposit of lime in one of these that a kiln, fifty feet in diameter, is utilizing the product. The country surrounding abounds in fish and game, and is well worthy the visits of tourists. Good accommodations are found in several villages, and almost everywhere among the thrifty farmers.

Springville.—53 miles from the city, is a village of 1,500 inhabitants, and named from the immense warm springs which flow from the caoñn near by. An enterprising miller utilizes the water from these springs to run his flouring mill, and when his neighbors' wheels are locked by hard freezing he pushes right along. Just back of the town is the pretty Hobble Creek Cañon, which gets its homely name from the earliest Mormon explorers who camped one night, some thirty years ago, between its romantic walls, and found a pair of old Spanish hobbles. A fine vein of coking coal is found in Pleasant Valley, 40 miles distant through this canon. Large quantities of coke are hauled to the railroad here and are shipped to the smelters, near Salt Lake. A railroad is projected to the mines, and seems to have a pretty even chance of reaching them within a year or two. Springdale is one of a perfect belt of villages which lie beautifully at the base of the mountains, and along the eastern shore of Utah Lake. The country is rich in grain and fruit farms, and the inhabitants are to be envied their cosy homes amid such lovely scenes.

Hunting and Fishing.—All along this shore line are points of rendezvous for disciples of the gun and rod; but Spanish Fork, a town of 2,000 inhabitants—situated on our line, 50 miles south of Salt Lake City—seems to be preferred by the sportsmen. Spanish Fork River empties into the lake near here. Duck hunting among the reeds and along the banks of the lake two miles distant is simply unexcelled, and trout-fishing in both lake and river is superb. The lake is full of five-pound trout—ten-pound trout are not strangers in its translucent depths—and the river swarms with the smaller though none the less gamy kind. Suckers and other fish are also very plentiful. Spanish Fork hotels entertain very acceptably at about two dollars per day.

A large dairy for the manufacture of butter and cheese is located near Spanish Fork. It has been in operation two years, on the co-operative plan, and proves a thorough success. The pure atmosphere, cool nights, and splendid springs of ice-cold water are auxiliaries found everywhere along the Utah mountains, and render the manufacture of such articles an easy task. Readers may wonder what we mean when we say that within the confines of the town 100,000 bushels of wheat were raised in 1877. These are towns of stone-walls and cornfields, of orchards and potato patches, of mingled cow pastures and business blocks—at least that is what a Yankee with an eye to rural industry would call them. In passing round the corner from your hotel to a dry goods store you can at different points save time and distance by cutting cross-lots through a corral or two; and then, if you have an unconquerable desire for such "plunder" as squashes, melons, tomatoes, or the different varieties of fruits, a well-tilled truck patch awaits you across the way. This variegated manner of arranging things continues from the Mormon Tabernacle, in Salt Lake City, to the furthermost corners of populated Utah. On the table lands above Spanish Fork grapes are produced by the ton, and the manufacture of wine is carried on to considerable extent.

Payson, 66 miles, is a town of 2,000 inhabitants, located near the south end of Utah Lake. It is also a strictly agricultural community. Three miles farther south and a little to the left of the road is a pretty and enterprising little place, called Spring Lake Villa. It is cosily nestled under the very shadow of the mountains, by the side of the small lake which gives it name. The villa is noted for its fine fruits, large quantities of choice apples, peaches, pears, grapes and other small fruits being produced. Quite an extensive fruit-canning establishment is located here.

The Tintic Mines.—Santaquin, 71 miles, is the principal forwarding point for the Tintic gold and silver mining district. Here, as well as at numerous other stations, we noticed the large warehouses of the Utah Forwarding Company, a corporation which has its chief office at Salt Lake City, and does an immense carrying business, reaching out to the furthermost settlements and mining camps of Utah. The Tintic mining district is located in the Oquirrh mountains, about 15 miles west of Santaquin, and covers an area of 150 square miles. It is a literal store-house of mineral wealth from center to circumference. Average assays of ores from thirty leading silver mines made during December, 1877, exhibited a value of $75 per ton, and many specimens of gold and silver ran as high as $2,000 and $3,000 in value per ton. Six mills and smelters are in operation in the Tintic district. Thirty-five stamps are pounding the silver and gold from "free-milling" ores, while millions of pounds more of the material which must be smelted are annually shipped to the northern smelting works. Vast deposits of hematite iron ores are found near the mines of precious metals, and at present are largely utilized for "fluxing" with silver ores at the smelters. Over 20,000,000 pounds of this were shipped to the Sandy smelters over the Utah Southern, in 1877. Copper ore of good grade is also found near the same district. Tri-weekly stages run to the different mining camps. Fares and distances from Santaquin are as follows: to Goshen, 6 miles, $1; Diamond City, 13 miles, $2.50; Silver City, 16 miles, $2.50; Eureka, 21 miles, $3.50.

SOUTHERN UTAH AND NEVADA.

York.—Seventy-five miles south of Salt Lake City is the temporary terminus of the Utah Southern, and therefore the great transfer and forwarding point for the southern Utah, Nevada and northern Arizona trade. Large trains of covered wagons were seen approaching and departing, and the real old Concord coach again appeared in its most useful sphere. Over 10,000,000 pounds of freight were sent northward from here during 1876, and the showing of south-bound freights was equally gratifying. It is plain to see that the railway here already grasps at the wealth and plenty of the great southwest. It is just at the threshold of a sunny empire, and needs but cross to reap the full reward.

The people of Utah seem to take most pride in the semi-tropical southern half of their territory, and firmly believe that all the vast trade of that region and of the best silver and gold regions of Nevada and Arizona will flow northward over their railroads to the Mormon capital; or, carrying it a little farther, that all the southern border there will certainly be made tributary to the north and east by the extension of the Utah Southern Railway, rather than to the western and southwestern coast. With due deference to Pacific coast enterprise, we all realize that Eastern commercial centers supply the continent. The bulk of merchandise, mining supplies, etc., for the rich mines of southern Nevada formerly went past Salt Lake City westward 300 miles; then south and southeast by indirect roads all the way from 250 to 400 miles more. Since the opening of this direct route to the northeast, however, by which some 200 miles in distance are saved, travel and trade have, to a large extent, been turned to the natural channel. A glance at any map of the continent also enables us to see that with the extension of the Utah Southern the same rule will apply to the great Arizona region. Instead of going westward from Ogden 900 miles to the Pacific coast, and then southeastward 800 miles more to the Arizona settlements, by lines now established, the travel or freight traffic will turn directly southward via the Utah Central and Utah Southern Branch of the Union Pacific, and reach the same points in a thousand miles less of distance. Indicating the directness and other natural advantages of this route is the fact that the government has already established mail service from St. George, in southern Utah, southward along the Colorado river, to Hardyville, Camp Mohave, Ehrenburg and Yuma, in Arizona.

Large quantities of cotton are already produced under the warm skies of southern Utah, and manufactured into the coarser fabrics by the same unskilled hands which till the fields. Tobacco, rice, almonds, pomegranates, figs, grapes, madder and indigo, with most cereals and vegetables, are among other leading productions in this favored clime. The valleys are not very extensive, as a rule, but are numerous and exceedingly fertile. Stock raising has become an important branch of industry. Washington and Kane counties are small kingdoms in themselves, taking up nearly all the territory known as "Southern Utah." They contain about fifty towns and settlements, which are noted for their fine fruits and manufactures of woolen and cotton yarns and fabrics, leather, boots and shoes, syrups, wines, raisins, castor and other oils and medicines. About every shade of temperature and climate are represented in the different localities, from 114° in the shade to icicles in midsummer. Hunting is excellent everywhere in the mountains, and trout streams abound in all sections. Some of the smaller valleys are perfect little gems of loveliness and fertility. Among the nooks particularly rich in natural attractions is Little Zion Valley, which lies near the north fork of the Rio Virgin river, and a few miles east of the St. George Stage Line. The admirable view on another page is only one of the hundreds equally beautiful to be obtained in that romantic locality. Rockville and Zion are the nearest villages of note, and can easily be reached from Bellevue and other points on the stage road.

Mining along this southwestern route is an industry which must assume great proportions in the very near future. Silver ores are found in the mountains on the right at almost every step. Prominent among mineral regions now partially developed are those tributary to Beaver, 150 miles southwest of York. The "San Francisco Silver District" is one of these. Some of the mines in this district are veritable bonanzas, and have already paid for the erection of mills and smelters The "Horn Silver" is the name of one of these immense deposits. Its vein has been thoroughly prospected for a distance of 300 feet, revealing a solid ore body 50 feet wide and thus far known to be 200 feet deep. Eight thousand tons of ore have already been taken out and worked, revealing no sign of exhausting the supply. The mineral yields from 40 to 70 ounces of silver to the ton. Running through this immense vein are streaks of "horn silver," worth from $1,000 to $2,000 per ton. The "Elephant," which yielded $30,000 in six weeks, the "Hidden Treasure," "Rebel" and "Uranus," are other noted mines. Such sub-districts as the Picacho, Rocky, Star, Pine Grove and Granite, all within easy reach of this route, are full of miners and prospectors, and are shipping hundreds of tons of ore every month to the north and east. The number of mineral locations run up into the thousands. Silver ores from many large mines average 50 ounces of silver per ton, and 45 per cent lead, while many in addition yield from $5 to $20 in gold per ton. In the San Francisco District large smelting and reduction works have been completed, and others are being built. On the strength of these great mines two towns — Frisco and Grampian — were being rapidly built late in 1877.

The mines continue to occur at short intervals southward into Arizona, and westward into the great silver belts of Nevada. Leeds and St. George, in Southern Utah, are the prominent centers for that region. The Leeds or Silver Reef mines have recently become widely famous for their richness and extent. Not only do gold and silver abound in these districts, but copper, iron, coal and lead exist in immense deposits at various points. The silver ores are often easily reduced by stamp-mills. The mills in Leeds district pounded out a product of 400,000 ounces of silver in 1877. Miners are everywhere praying for the extension of the railway, and even the most conservative ones are so extravagant as to declare that the mining industry will alone pay a railroad's running expenses. It will be many years before sufficient smelting and reduction works are constructed at the mines to consume the ore produced, and the richest ores will for a long time be transported north to Salt Lake City or to Omaha. The tonnage of ores now forwarded is no criterion of what it would be should the railroad extend to within 50, or even 100, miles of the best mines, because the wagon transportation is so expensive now that only the very richest ores can be shipped with profit. Following is a statement of distances on Gilmer, Salisbury & Co's daily stage line south from York, together with passenger and *express* freight tariff. Mule freight to Beaver is about one cent per pound, to St. George about two cents:

From York to	Miles.	Fare.	Freight.	
Nephi	16	$2 00	2	cents.
Chicken Creek	30	3 75	2½	"
Round Valley	55	7 00	3	"
Fillmore	80	10 00	4	"
Corn Creek	92	12 50	5	"
Cove Creek	123	15 00	6	"
Beaver	152	18 00	7	"
Buckhorn	174	23 50	8	"
Parowan	189	25 75	9	"
Summit	195	26 50	9	"
Cedar City	209	28 00	10	"
Harmony	231	31 50	12	"
Desert Springs	279	38 25	13	"
Pioche, Nevada	321	40 00	15	"
Via Harmony to Bellevue	245	33 50	12½	"
Leeds or Silver Reef	258	35 00	12½	"
St. George	276	37 50	14	"

The Utah Western Railway.—Returning to Salt Lake City, we made a trip out to the shores of Great Salt Lake, 20 miles, and on to Stockton, 37 miles from the city. As its name would indicate, this narrow-gauge line has a general western course from the city, and is calculated to develop the rich mining regions and agricultural valleys in that direction. It skirts the extreme southern shore of the lake, and then turns a little to the south, along the western base of the Oquirrh mountains. As it is the regular line for all pleasure travel to the lake, and extends to within a few miles of the best mines of Stockton, Ophir and Rush mountain districts, it takes a very important part in the carrying business of Utah.

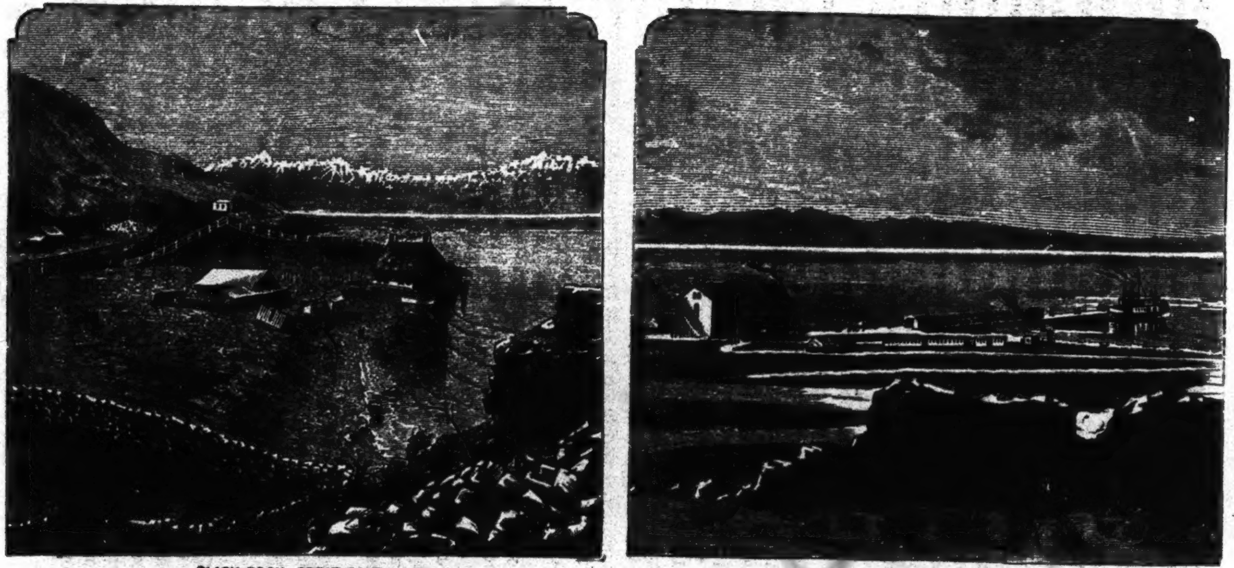
Crossing the Jordan near the outskirts of the city, the road enters a stretch of uncultivated prairie 12 miles wide by about 50 long. Herds of cattle and sheep alone utilize these rich bottom lands, as something has prevented such a lavish use of water for irrigation as we saw almost everywhere else in the territory. We were informed that canals could easily be led from Utah Lake, or the Jordan, over all this broad area, and no doubt such enterprises will soon be under way. This plain or flat, sometimes thickly covered with sage brush, is the "jack" rabbit's paradise. About every sage bush claims its rabbit, or *vice versa*.

Millstone Point, 12 miles from the city, is the first station. Here the enterprising millers who first ground Utah wheat quarried their mill-stones. A few miles distant are some large hot-springs of clear water. Three miles west of the station, near the track, is a cave, whose romantic precincts are made to answer for a corral and shelter for a large herd of sheep. Having rounded the northern extremity of the Oquirrh range, the great Dead Sea, with its grand shore-line of rugged mountains and its beautiful islands, came into full view on the right. Passing Black Rock station, named from a dark-colored rock rising high out of the lake, about 100 yards from the shore, we soon arrived at

Lake Point, 20 miles from the city, which is the resort for the thousands of pleasure-seekers who flock to the lake every season. Here is the "Short Branch Hotel," which has every convenience for the accommodation of visitors, and from whose wide balconies we obtained a glorious view of the lake, its surrounding mountains and its rocky islands. We should also mention that there is a hotel at Black Rock. It is but a few yards down to the gravelly beach, where are bathing-houses, a wharf and the boats. The steamer "General Garfield" is always ready here to take pleasure parties on a delightful cruise out over the clear waters and among the beautiful islands. The steamer, at times, has other occupation, too, for the islands and the west shore are rich in minerals, and large quantities of ore are transported from them to this point. Pleasure travel to the lake is rapidly increasing, both on account of the fine scenery thereabout and by reason of the unrivaled salt-water bathing afforded. Thousands avail themselves of the low excursion rates of the Utah Western, and enjoy a novelty which the whole world outside does not afford—a delightful plunge into salt water midway between oceans, and at the same time breathing the finest mountain atmosphere in all the land. In these waters you cannot sink, and the tonic and invigorating properties have been demonstrated to be far superior to those of the lighter fluids of the ocean. Giant's Cave, from which we obtained exquisite specimens of stalactites, is a noteworthy attraction near by.

The Great Salt Lake stretches off northward 80 miles, is about 50 miles wide, and lies 4,200 feet above the ocean. The Oquirrh mountains rise high above the hotel just in the rear; the west mountain range borders the lake on the west, and far along the northeast shore runs the grand Wasatch range. Promontory mountains jut far out into the lake from the north, the whole forming a shore-line of singular beauty and magnificence. Antelope, Stansbury, Hat, Gunnison, Kimball's, Carrington and Church are the principal islands. The mountains in some of these appear to belong to the same ranges which form the shore line and nearly all contain deposits of either the precious or base metals. On Carrington and Church Islands, in the southern part of the lake, are immense beds of slate and rich copper deposits. Numerous herds of wild horses, different kinds of game and many domestic animals are also grazing in these romantic localities. The waters of the lake have risen a dozen feet since the earliest settlement of Utah.

The wonderful density of the Salt Lake waters has long since attracted the attention of Yankee enterprise. Large crystallizations of pure salt are often gathered on the shores of the mainland and islands, and in these later years it is found that four barrels of water evaporated produce one barrel of coarse salt. The utilization of this vast salt mine being such an easy matter, several firms are busily engaged in the work. The old way has been to dam off the waters of a shallow inlet from those of the lake; these, averaging four feet in depth, would be entirely evaporated in three months, leaving a crust of salt on the beach of from one to three, and at rare intervals, six inches in thickness. The finest salt would always be found in the deepest portion of the inlet where the water remained the longest. The product was gathered up and marketed without further manipulation. However, the leading firm, Messrs. Lawrence & Burgess, have now erected immense vats close to the lake, but eight feet above it. The water, after being pumped into these, is controlled to better advantage than in the old way, and the salt saved is white as snow—said to be as fine as the best Syracuse dairy salt—and is becoming a leading article of consumption all over the West. This firm manufactured 6,000 tons of the different grades of salt in 1877, and other firms 4,000 tons more. Of these 10,000 tons, much was left in its coarse,



BLACK ROCK, GREAT SALT LAKE.

LAKE POINT, GREAT SALT LAKE.

REACHED BY UTAH WESTERN RAILWAY, VIA UTAH CENTRAL BRANCH OF THE UNION PACIFIC RAILWAY.

native state, and shipped to the smelting works of Nevada, Colorado and Montana. Colorado alone consumes 5,000 tons annually, and this will undoubtedly be supplied from the inexhaustible beds of the great lake, now that the Colorado Central Branch of the Union Pacific Railway affords such direct access to the consumers there. This Salt Lake product is especially sought by smelting companies, for the unusually large percentage of chlorides it contains—only 3 per cent of moisture and impurities are held in solution. Salt here sells for about $6 per ton on the cars, and can be placed upon the railroad for less than can the same quality be manufactured at any other point in the Union. With a now very large and constantly growing consumption, and these unequaled facilities for production, we may soon expect to see many factories crowding the lake-shore, and an industry worked up, which will add immensely to the territory's wealth.

Skirting the southern shore of the lake, the Utah Western passes "Half-Way House," 25 miles from the city, Tooele, 31 miles, and makes its present terminus two miles from Stockton, at the southern rim of Salt Lake Valley, or 37 miles from the city. After leaving Lake Point, the traveler notices many fine farms on the left, and near the "Half-Way House" are busy flouring and woolen mills whose wheels are turned by the waters of large springs, which gush out near the station. Ten miles to the west is Grantville, one of the most thriving agricultural towns in Utah.

Stockton and the Mines.—Stockton is pleasantly situated in the northern end of Rush Valley, adjacent to the great mines in the Oquirrh range, and is a prominent center for the reduction of ores of the district surrounding. The first discoveries of silver in Utah were made near here. Three smelters—one of them the pioneer of the territory—are here busily at work, and the visitor can always see huge piles of bullion at their store-houses, or at the depot, awaiting shipment. There is a population here of 600. Stockton Lake, a pretty little gem in the mountains, near by, has a singular history. Local historians informed us that thirteen years ago the lands it now covers were broad, waving meadows, but through some strange freak of nature the crystal waters came, and the inhabitants woke up one morning to find a lake four miles long and a mile wide nestled down in the center of their fertile valley.

The mines are not located in the highest mountains here, but in a range of low hills which skirt the town on the east. The "Argent," "Great Basin," "Silver King No. 2" and the "Quandery," were the principal producers of silver ores in 1877. The "Silver King No. 2" shipped 2,500 tons of ore, which assayed $10 per ton. The ores from many of these mines are concentrated into what is known as "base bullion," at the local smelters, and then the silver and lead product is shipped to Omaha or elsewhere for separation and refinement. About twenty mines were raising ore during our visit, and the smelters have more than they can do to use up this product. The "Waterman" and "Chicago" are the principal smelters. Their product for eight months of 1877 was, in round numbers, 210,000 ounces of silver, 530 ounces of gold and 6,000,000 pounds of lead. The Stockton mines excel almost all others in Utah for their accessibility, and freedom from storms in winter. The altitude is less than that of any Utah mining district with which we are acquainted, and snow seldom falls to a depth of six inches. Good wagon roads lead from the terminus of the Utah Western Railway to all the mines. Over these the visitor can see ores transported every month in the year. The hills are so agreeably rounded and well covered with grasses, that herds of cattle, sheep and horses can be seen grazing in the midst of the mines—a sight not often afforded in mining regions. Ores can be transported from the different veins to Salt Lake City at a total cost of $4 per ton.

Southward from 10 to 20 miles are the Ophir, Dry Cañon and Camp Floyd mining districts, possessing many rich properties, and being directly tributary to the Utah Western, via Stockton. From Stockton there is a daily stage line to Ophir City, Jacob City, Rush Lake, and other localities worthy a visit. Fares from Salt Lake City, on the Utah Western, are, to Lake Point, 20 miles, $1.25; Half-Way House, 25 miles, $1.50; Tooele, 29 miles, $2; terminus, 37 miles, $2.25. Excursion tickets are sold from the city to Lakepoint and return, at $1.25, and special excursions are formed weekly, in summer, with the fare reduced to from 50 cents to $1.

CHAPTER VI.

NORTHERN UTAH, MONTANA AND IDAHO.

The Utah Northern Branch of the Union Pacific Railway.—The longest and most important narrow-gauge line west of the Rockies, is the Utah Northern Branch of the Union Pacific. It turns northward from the great overland line at Odgen, follows along the western base of the Wasatch range, through the richest counties of Northern Utah, and has for its temporary halting place Franklin, Idaho, 80 miles from Odgen. This line was not only intended to complete Utah's admirable railroad system, but also to reach far to the north, penetrate the mining regions and settlements of Montana, and to thoroughly drain the mountain-locked Territory of Idaho. The enterprising people of Northern Utah undertook the enterprise in 1871, and struggled bravely along with it for four or five years, when the Union Pacific Railway Company consolidated it with the interests of that great road. With such men as Mr. Gould at the helm, the scheme could not lag, and we now find it going forward with a vigor unknown before. The headquarters of the Utah Northern are at present at Logan, and George W. Thatcher, Esq., is General Superintendent. Following are stations northward from Odgen, as far as laid down, with population, altitude and fares:

Ogden to—	Distance.	Fare.	Population.	Altitude.
Willard	14 miles	$ .75	1,800	4.350
Brigham	22 "	1.25	2,500	4,226
Hampton's	43 "	2.50	....	4,900
Mendon	53 "	2.75	300	....
Logan	60 "	3.00	4,000	4,557
Smithfield	67 "	3.35	1,000	4,616
Richmond	74 "	3.70	1,700	4,641
Franklin	80 "	4.00	500	4,552

As the road leaves the inviting suburbs of Ogden, it crosses Ogden River, which is here lined with beautiful groves and alternating meadows. The same great Wasatch range which we so pleasantly followed to the southward here rises closely on the east, and Salt Lake affords some of the finest views on the west. Six miles from Ogden, close up under the shadow of the mountains, is the thriving village of North Ogden. A few miles farther on the road enters a little belt of land, three miles wide and five long, which is called the "garden spot of Utah." The lands slope gently from the base of the wonderfully rugged mountains to the lake shore, the yellow wheat fields meeting the green meadows half way, and the fruit orchards often shading the railway track. The choicest apples, peaches, pears, apricots, and all small fruits, are produced here with great regularity, year after year. Forty to sixty bushels of wheat per acre is a common crop here, and the farmer with his little field of ten acres points to better results than he who cultivates twenty in the best Middle States. Splendid stone fences mark farm boundaries almost everywhere, and with the excellent farm buildings, well-cultivated fields and thrifty orchards, present an appearance at once of stability, wealth and plenty. Improved lands in this little belt and adjoining on either side are held at $100 and upward per acre.

Willard, 14 miles north of Ogden, is without doubt the most beautifully-located town in Northern Utah. The waters of the great lake wash its western exposure, while the mountains rise up grandly on the east. Highly-cultivated farms crowd up to the mountains and to the lake-side alike, and the village is embowered in orchards and shade trees. From its commanding position, Willard affords one of the most charming views of our Dead Sea, and, we believe, is destined to soon be a resort for pleasure-seekers from both the east and west. In the mountains above is seen a great fissure rising from base to summit, the walls having a reddish tinge, and assuming forms as varied and beautiful as some of those in our leading cañons. On the north side of this immense gash are some noted iron mines, the "Iron Chief" and "Saratoga" being visible a thousand feet above the track by the piles of bright brown ore lying near them. The country continues rich and thickly populated almost until

Brigham City, 22 miles, is reached. Brigham was named in honor of the late Mormon leader. It is a thriving city of 2,500 people, and is only second in importance as a manufacturing center to Salt Lake City. It is essentially self-supporting, as about every article needed for wear or use is produced by the community. Here are extensive woolen mills, tannery, two furniture factories, saw mills, planing mills, etc., all working up raw material from the forests or products of rural industry. Butter and cheese are also largely produced here for exportation. Box Elder Cañon is a gash in the Wasatch range near the town worthy of a visit. Box Elder county, of which Brigham is the county-seat, has large areas of grazing lands, and the mountains in the western part, which lie near the Nevada line, are noted for their deposits of silver. Contiguous to Brigham, on the north, is a broad stretch of level hay-lands, from which thousands of tons of hay are cut for local and outside markets. Four or five miles to the west can be seen the town of Corinne, which in days past has figured largely in the Montana freighting business, but which now declines, owing to the inevitable march of the iron-horse northward.

Water-Fowl.—Some of the best duck hunting in the territory can be had right here in sight of Brigham. Marshes extend far out from the lake proper toward the mountains, and are covered with ducks, geese and brant. Salt Lake City hunters consider this one of their choice byways and are often seen among the reeds filling their bags with water-fowl and snipe. Hunters will find fair hotel accommodations at the station.

Leaving Brigham, the road enters the pasture-lands already referred to, and soon creeps up along the bench-lands to the summit of the divide between Salt Lake Valley and Cache Valley. As this altitude—5,000 feet above sea-level—is being reached, the traveler gets fine views of Bear River, which is here pouring its waters southward, toward Salt Lake. It is the same river which was so greatly admired at Evanston, Wyoming. There it was flowing northward, a course which it kept for a hundred miles or more, until it rounded the northern end of Bear Lake, and finally turned toward the great reservoir of Utah. Small bands of Shoshone Indians, whom the Mormons call "Lamanites," are living in a semi-civilized manner along the river, and their rude huts and tepees can be seen as the visitor gets his first view of the stream north of Brigham. They cultivate the rich valley soil in summer and hunt among the neighboring mountains or along the lakes and rivers in winter. During 1877 one settlement of these raised 2,000 bushels of wheat and 1,000 bushels of potatoes, beside improving their homes to some extent.

Hampton Rock.—Near the summit of the divide, 43 miles north of Ogden, is Hampton's, a dinner station, and a few hundred yards west of the road is the above landmark, which is peculiarly formed, and has something of a history. It is a bold crag of conglomerate, overlooking the valley. The rock is simply a mass of very small shells, is easily cut with an ax, and is quite generally used for building purposes. It hardens with exposure to the atmosphere. In cutting into the rock, a few years ago, the quarrymen found part of the petrified bones of what they believed was once a buffalo. Their theory for the appearance of *buffalo bones* in a mass of *petrified sea-shells* is, that when the briny waters of Great Salt Lake covered all this interior basin, an inquisitive buffalo came down from the grassy bluffs surrounding, saw this little island out a few hundred yards from the shore, and made his way to it. The island proved to be only a bed of shells and quicksand, the "king of the plains" sank to an inglorious death, was pickled, petrified, and finally "resurrected."

Cache Valley.—Shortly after leaving Hampton's, this great valley, the "Utah Wheat Granary," came in full view in front and to the right. The valley will average more than a dozen miles in width and is some fifty miles long, extending north over the Utah line into Idaho. In few places have we ever seen valley line and mountain base so well defined. At many places not even the graceful foot-hills intervene, and on the east side an almost unbroken range for fifty miles rises abruptly 3,000 feet above the valley. No wonder those towering walls, with their many sharply outlined citadels running up into the clouds, are the pride of Cache valley pioneers. They send coursing through the valley dozens of beautifying, earth-nourishing streams; they repel the furious winds of outer plains; they furnish an almost perfect barrier against the escape of the valley's wealth—the thousands of cattle and sheep produced; and they afford an abundance of splendid fuel and building material, while their treasures in silver and gold will ere long fill the country with consumers, and thereby create that great desideratum, a home market. The surface of the valley is quite level. In glancing along the course of the irrigating ditch—which can often be located on a "bee line" from the mountains on account of this regularity—you will here more than ever unconsciously assert that the sparkling streamlet is running up hill. Villages are strung all along the Utah Northern Railway in this valley, from its point of entrance at Mendon to its exit beyond Franklin. The population is estimated at 14,000. The inhabitants are principally well-to-do Mormon farmers and stock raisers, although manufacturing is quite extensively engaged in at several points. Having an average elevation of only 4,500 feet above sea level, and possessing very fertile soil, the valley lands produce all cereals and hardy vegetables in great abundance. Nearly 1,000,000 bushels of grain and vegetables have been produced here in one season, and the area is not half utilized. There are nine flouring mills, one pearl barley mill, several woolen mills, sawmills, a foundry, planing mill, etc., in the valley, all run by water-power from the swift streams. The Bear, Logan, Cub, Blacksmith's Fork and Little Bear rivers are the principal streams. They are fed by many others, and nearly all are full of trout and other fish. Prairie chickens are plentiful among the farms, within sight of the track, from one end of the valley to the other. Ducks and other waterfowl abound, and the thickly wooded banks of all the streams afford good cover for the sportsman. All of these mountain ranges are full of deer, elk and other large game. Logan would be the best point of rendezvous for hunters. Entering the valley at Mendon station, 58 miles north of Ogden, the road sweeps across the meadows and streams to the east side, and passes through

Logan, 60 miles from Ogden. Logan is the county seat of Cache county, beautifully situated near the mouth of Logan Cañon, and boasts a population of 4,000. Most of the manufacturing enterprises above noted are located here, and they give the town quite a lively air, as well as good solid foundation for prosperity. The lumber interest is probably most important, four large mills sawing and working logs from the mountains into lumber of all kinds, furniture, etc. Fine farms surround Logan, and dairying is a leading industry in the vicinity. A large Mormon temple is now being erected here. It is built of stone, 171 by 95 feet, and the highest tower is to rise about 200 feet above the street. Logan Cañon is one of the wildest and deepest gorges in the Wasatch mountains—a range in which gorges are pretty well developed—and is over 50 miles in length. Trout fishing in the river is first class. A good road leads into the most interesting portions of the Cañon. Logan itself commands a magnificent view, embracing 600 square miles of valley and mountain landscapes. Hotel fare good, at $2 per day. Seven miles south of Logan is Hyrum, general headquarters for lumber dealers and manufacturers. Over 1,000,000 feet of lumber, and some 200,000 railroad ties, were cut from the neighboring mountains in 1877. Ties are floated out to Bear river, thence down to the Pacific Railway, and the lumber is shipped southward over the Utah Northern. A few miles farther south is *Paradise*; and we are loth to chronicle the fact that Paradise is twelve miles *away* from the railroad. The village contains 500 people, who, in spite of their celestial abiding place, are busily engaged in producing a first class article of Utah sorghum molasses, and a very fine grade of American beef cattle. From Logan there is semi-weekly mail to Hyrum and Paradise, and tri-weekly mail to Newton, 12 miles; Clarkson, 18; Weston, 24, and Oxford, 49 miles.

Smithfield.—The next station of note on the Utah Northern is Smithfield, 67 miles north of Ogden. It is essentially a farming community of about 1,000 inhabitants. More wheat is raised here than is produced by any other community in the valley. Farms are blocked out for miles on either side of the village. In the early days of settlement here all built their houses together as a means of protection against the savages, and to this day the farms are without buildings of any kind. All grain is hauled to the village and threshed, and all other property is kept there closely under the eyes of the owner. One of the largest flouring mills in Utah is located on the banks of the pretty and swift-flowing Summit creek, which dashes down past Smithfield. A large tannery is also in operation here.

Richmond — 74 miles, attracted attention, especially, by its immense barns, which remind the visitor of those of the far Eastern States, and also suggest thrift and good living. Fruit and grain-raising are the specialties here. All of these settlements are nestled closely at the base of the mountains on the right, where the mountain streams and forests are more readily utilized; but three or four miles to the left of Richmond, and occupying a high plateau between Bear and Chub rivers, is Lewiston settlement, where several hundred farmers have been producing good crops, without irrigation, for several years. This would indicate that other rich uplands in Cache valley, which cannot be irrigated without considerable difficulty, may also be rendered productive. Soon after passing Lewiston settlement the road crosses High creek, another strong mountain stream, watering large tracts of valley lands, and soon after reaches

Franklin, Idaho, 80 miles from Ogden, where passenger travel seeks the stage-coach, and freights are transferred to the "mountain schooner." Only the busy construction trains of the Utah Northern Company enliven the valley beyond. There are about 500 people at Franklin, engaged in railroading, freighting, etc. At the terminus we found a good, comfortable railroad hotel — the "Lewis House" — kept by an enthusiastic railroad man, who proposes to stay *at the end* of what he considers the most important narrow gauge railway line in the country. Of course he is beginning to realize that he will be compelled to get up some fine morning in the summer of 1878 and haul his portable hotel to Snake river, 150 miles distant.

The daily stage, mail and express line of Gilmer, Salisbury & Co. connects with the Utah Northern for all cities, towns and mining camps in Montana and Eastern Idaho. The telegraph also continues northward to the settlements of those thriving territories. Graders and tracklayers are busily engaged in pushing the second division of the Utah Northern onward in the wake of these pioneer institutions to Eagle Rock, about 150 miles north of Franklin, in the Snake river valley. This early extension will, of course, push stages and wagon-trains still farther into the north and west. "Extend this railroad line into the heart of Montana," said an old stage man, "and we will run the 'Concord' to the shores of Hudson Bay; follow us there, and it will remain our duty to find that great 'northwest passage' about which the world frets so much!" Following are prominent points on Gilmer, Salisbury & Co's daily lines, with their distances and present fares, from Franklin:

Franklin to		Distance.	Fare.
Fort Hall Indian Agency,	Idaho	90 miles.	$12 50
Snake River Crossing,	"	135 "	22 50
* Salmon City Mines,	"	395 "	....
Shineberger's Red Rock Crossing,	Montana	270 "	40 00
Lovall's,	"	290 "	42 50
† Bannack,	"	320 "	45 50
Salisbury,	"	335 "	47 50
Virginia City,	"	360 "	52 50
Gallatin City,	"	390 "	58 50
Butte City,	"	400 "	60 00
Deer Lodge,	"	400 "	62 50
Jefferson,	"	400 "	60 50
Helena,	"	425 "	62 50
Bozeman,	"	450 "	70 50
Fort Shaw,	"	465 "	72 50
Missoula,	"	475 "	74 50

Leaving Franklin the railway crosses Bear river about a dozen miles to the northwest. Soon following is the fertile and well-settled "Gentile valley." Adjoining this at the north is Portneuf valley, thirty miles long and ten wide. It is watered by numerous little mountain streams which dash down from all sides. The soil here is rich and deep, and the streams are said to be full of salmon trout. The Portneuf river and marshes surrounding abound in wild geese and ducks. The mountains adjacent are full of bears and deer, mountain grouse and sage hens.

The Great Soda Springs.—The extension of the Utah Northern will render accessible these springs, which are pronounced by all visitors among the greatest wonders of the west. The springs are about 25 miles east of where the line is projected to cross the Portneuf river, and the shortest and best route will undoubtedly lead from a point near the crossing. Soda Springs are located within a stone's throw of Bear river, and near the great "bend" already alluded to. One spring is graced with a lively stream vent which finds its way upward through an orifice in a massive boulder. Fremont named it "Steamboat Spring," on account of its measured puff which resembles that of an engine. A group of four of the other springs have attracted particular attention on account of the curative properties of the waters. The strongly mineralized fluid is ever bubbling up from the depths of pretty basins, and is as pleasant as a beverage as it has been found exhilarating and strengthening as a tonic. Invalids with some of the most deep-set and loathsome blood diseases claim to have found a perfect cure in these fountains. A mile distant are other and little less interesting springs, the waters of which are so pregnant with calcareous matter as to quickly form a coating of limestone upon any object immersed in them.

The vicinity abounds in other attractions, which must soon win thousands to summer sojourns. Near the springs last referred to is a pretty little lake upon which, subject even to the passing breezes, is a floating island of earth and luxuriant vegetation which has been set adrift from the shore. Four miles southeast of Soda Springs is Swan Lake, one of the loveliest natural gems set in the Wasatch chain. It reclines in an oval basin, whose rim is ten feet above the surrounding country. The shores are densely covered with trees, shrubs and the luxuriant undergrowth native to that country. The outlet is a series of

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* Semi-Weekly. † Tri-Weekly.

SHOSHONE FALLS, SNAKE RIVER.

REACHED VIA UNION PACIFIC RAILROAD AND NORTH-WESTERN STAGE LINE.

small moss-covered basins, symmetrically arranged, the clear water overflowing the banks, trickling into the nearest emerald tub, then successively into others, until it forms a sparkling stream and dances away to a confluence with Bear river in the valley below. It is a matter of common belief among old residents of the locality that the lake is bottomless, no soundings having yet developed its depth. Adjacent to this fit abode for water-nymphs is the singular sulphur lake, out of whose center liquid sulphur incessantly boils and coats the shores with thick deposits, looking as though it might be a direct out-cropping of Plutonian regions. Salmon and trout fishing is superb in the clear water of the lakes and streams. Deer, geese, ducks, grouse, sage hens, and prairie chickens are also found in great numbers in the vicinity, all together holding out rare charms for the traveler, health-seeker or disciple of the gun and rod.

This was once the favorite resort of Brigham Young, and is still the regular summering place of numerous Salt Lake City merchants, who have built appropriate residences. A hotel of moderate accommodations and the abiding places of a few regular residents add to make of Soda Springs quite a hamlet. The spot is distant from Franklin by wagon road about 65 miles. Wagon roads will quickly be constructed thither from the Portneuf and other points, however, and the ban of isolation removed from this whole region of grand and multiplied attractions.

Idaho.—From the Portneuf north to Eagle Rock, ranches and stage stations have long since broken the solitudes for the more important pioneering of the Utah Northern. From different points en route, those gigantic northern landmarks, the "Three Tetons," 75 to 100 miles further on, are plainly seen in northeastern Idaho, and other mountain ranges, near and distant, often afford a splendid field for study to the traveler from the south. By a glance at the map it will be seen that the railway will cross a wide belt of eastern Idaho. It will also be noticed that from Eagle Rock the distance across to Boise City and other prominent cities and mining camps of the territory will be much shorter than from Kelton, their present railroad outlet on the Central Pacific. Idaho is 400 miles long north and south by 300 wide across the southern portion. It contains a mere sprinkling of some 15,000 inhabitants. "Out west" it is called the "Gem of the Mountains," because of its great diversity of resources, its mild and healthful climate, and its fine scenery. The surface is described as very much broken by short mountain ranges, which are disconnected, grouped in every conceivable form, and run in every direction of the compass. Lying among these mountain ranges are the most beautiful and fertile valleys, where snow seldom falls more than a few inches, and all hardy vegetables, fruits and cereals are produced in great abundance. The superior size and flavor of Idaho fruits are noticed by all visitors. Gulch mines which rival the richest of California have been worked for a dozen years or more. Gold and silver quartz mines are found in many of the mountain ranges and are yielding bountifully, in spite of the general isolation and lack of adequate milling and smelting facilities. Large quantities of the ore are so rich that they are conveyed over the mountains on pack animals to wagon roads, thence down to the Pacific railway, 250 to 300 miles distant and eastward to Omaha or the seaboard for reduction, paying splendidly after all such trouble and expense are bestowed. The mineral yield of Idaho has already been some $65,000,000. Among the greatest attractions are the Shoshone falls, Snake river, 110 miles from the railroad.

They are 200 feet high, and are well worth the 110 mile stage ride which the visitor must make to reach them. The Northwestern Stage Company's Concord coaches run daily from Kelton northward to Boise City 250 miles, and thence on into Oregon, passing within 10 miles of the Falls. A branch line runs over to this western Niagara. As an indication of the importance of the Idaho trade we mention the facts that about 3,000 tons of freight are hauled thither from Kelton annually, and that the inhabitants produce comparatively little but gold and silver. Splendid as are the results of rural industry and the opportunities for manufacturing, these branches are in their infancy and offer fields for the investment of muscle and dollars. A resident also tells us that "hunting, fishing and trapping are open avenues for those who have a constitutional antipathy for work, and politics might be a dernier resort for those good for nothing else."

MONTANA TERRITORY.

In the heart of our continent, in the midst of the grandest ranges of the Rockies, and sending to distant oceans two of America's mightiest rivers, is the young territory of Montana. The commonwealth which has thrived so well while almost barred from the outside world by its isolation attracts new attention and interest, now that it is so soon to be stimulated by the near approach of the Utah Northern Railway. We believe Montana is the youngest of all our territories, (Alaska being "counted out"). It covers all that vast region lying between the 45th and 49th parallels of north latitude and 104th and 116th meridians of west longitude, extending about 550 miles from east to west, and nearly 300 from north to south. The area is therefore about 150,000 square miles, or nearly three times greater than that of New York, and twice as great as that of the six New England States combined. According to official reports, the territory contains over 20,000,000 acres of agricultural and 70,000,000 acres of choice grazing lands, while its many mountain ranges abound in the precious and base metals. We cannot, in the space afforded by this little volume, hope to more than convey an idea of the matchless resources, the beauties of scenery and the superiority of climate of this broad domain. Neither can we indulge in much geography, except to say that the great rocky spine of the continent is here, that its spurs shelter hundreds of fertile valleys and that iron rails to reach them easily *must* run nearly north and south.

Climate and Soil.—We have reliable information regarding the climate of Montana, which must strike many readers, as it did us, as being not a little peculiar. Observations taken for a dozen years at different military posts and cities in the territory establish the fact that the climate, as a whole, is milder than that of New York or Iowa, and that the purity and dryness of the atmosphere make the variations of temperature far less noticeable than in either of those states. The temperature of Clark's Fork, in Montana, on the 48th degree of latitude averages exactly the same as that of St. Joseph, Missouri, on the 41st; and that of the Bitter Root valley, Montana, on the 46th, the same as that of Philadelphia, on the 41st. The valleys of the Rocky mountains, therefore, in Montana, 400 miles north of the sheltered cities of either the Atlantic coast or the western states have a climate altogether as genial—yes, far more genial—for we have before us records showing that in 1877, as well as in some previous years, there were *two hundred and fifty-four days of perfect sunshine.* Boston averages only 191 fair days in a year; Buffalo or Chicago still less. Scientific observations made by government officials demonstrate the fact that the mean annual temperature of Helena, Montana, is the same as that of Santa Fé, 800 miles to the south. Montana undoubtedly enjoys the benefits of the great warm currents of the Pacific ocean, and is still so far removed that fogs are never seen, and rains only in light showers in summer. This renders irrigation—a system which the Montana farmer would never change for rain—a necessity. The valleys are rarely covered with snow, and lovers of driving can enjoy dry roads ten months in the year. In the mountains winter does often pinch very hard and snow falls to great depths—but of course such regions are only utilized for their mines and forests—and even then are no worse than the forests of Maine and Michigan. The simple fact that nearly half a million head of cattle, horses and sheep roam winter and summer in their fatness on Montana's hills, unsheltered, unhoused, and unfed, save as they feed and shelter themselves on their ample winter grazing regions, is all the evidence we can ask of the mildness of the climate and will undoubtedly satisfy every reader. Summer days are never excessively hot, and summer nights are delightfully cool as they are in all Rocky Mountain territories.

The soils of the valleys resemble those of all the fertile interior basins already described in these pages, but the agricultural products are even more astonishing than are those of more southern localities. At the first Territorial Fair held in 1869, Colonel Forbis, of the Montana legislature, took the first premium on a field of 20 acres of wheat which yielded 82 bushels and 37 pounds per acre. At a succeeding Territorial Fair held at Helena City, Mr. J. L. Ray, of Lewis and Clarke counties, was awarded the first premium for the best crop of wheat, his average from a number of acres being 102 bushels per acre. Messrs. Forbis & Burton were awarded first premiums for the best barley, 118⅓ bushels per acre; best oats, 101 bushels per acre; best potatoes, 618 bushels per acre. The best single acre in wheat produced 113 bushels. The figures were sworn to by disinterested parties, as required by the agricultural society, and the appearance of sheaves on exhibition would warrant the yield claimed. The *average* yield of wheat is placed at 38 bushels per acre, twice as large as that of the great wheat state of Minnesota, and nearly four times as large as that of Ohio. Corn is not always a success, the cool nights probably being the greatest drawback. All sorts of garden roots grow enormously large, and peas, beans, tomatoes, cabbage, cucumbers and melons also attain remarkable size and fine flavor. Fruits and flowers flourish in all the valleys. Strawberries grow wild in mountain and valley. Raspberries flourish in the mountains, and wild gooseberries and currants are found along all the streams. Apples, pears, plums and cherries are among the varieties of fruit which are successfully cultivated. We learn of one fruit-grower in Ruby Valley who has an apple orchard covering 150 acres, the trees all bearing abundantly. The following sketch of farms in Bitter Root Valley, by Major Wheeler, U. S. Marshal of Montana, will give readers an idea of some of the thrifty and beautiful homes clustering along the many streams. Speaking of the farm of Hon. W. E. Bass, he says:

"The large fields of wheat, oats, corn, barley, rye, and potatoes, the vegetable garden, and especially the flower garden, excited our admiration. We saw 50 acres of wheat, averaging 40 bushels to the acre, and 20 acres of corn averaging 50 bushels, ripe and sound. I brought away specimens of corn, onions, melons, tobacco, broom corn, and even peanuts, which for quality and size cannot be surpassed anywhere. The flower garden was a gem of its kind, covering half an acre and containing over 100 varieties. The barn is 165 feet long and 60 wide, the stalls will accommodate the herd of dairy cows, 50 of which are milked and the butter churned by water-power obtained from a small stream which irrigates the garden. The house is prettily located among shady pine trees, a forest of which extends back to the mountains. A saw mill furnishes lumber used on the place. On the opposite side of the valley, ten miles away, is the farm of Thomas Harris, Esq. He has 70 acres of wheat, 50 of which are raised *without irrigation*, and the whole will average about 40 bushels per acre; 20 acres being a voluntary crop. Mr. Harris has an orchard of apple and plum trees of four years' growth, and they look very thrifty, varying from six to nine feet in height. Frost has never injured a thing. He has a field of timothy grass from which he cut twenty tons of excellent hay, or two tons to the acre. Here were vegetables of the best quality in the greatest profusion—watermelons, muskmelons, squashes, tomatoes, beets, carrots and onions, of large growth."

Of valleys in Montana, 100 miles long and upwards, and from 3 to 20 miles wide, there are the Yellowstone, Missouri, Madison, Jefferson, Gallatin, Deer Lodge, Sun, Hell Gate, Jocko, Bitter Root, Missoula, Flathead, Horse Plains, and others. It is estimated that if the arable lands of these principal valleys alone were placed in one continuous body they would form a belt 4,000 miles long, averaging four miles in width; or, in other words, would easily stretch from Boston, across our broad republic, to San Francisco. As laterals and pretty fringes for these are hundreds—literally hundreds—of smaller valleys, capable of giving perfect farms to a thousand inhabitants, each enriched by clear mountain streams, and sheltered by wind fences in the form of cloud-piercing mountain summits. As a close observer expresses it, "nestle" is the word. The valleys here nestle in the mountains. They follow the ceaseless and picturesque windings of the rivers, the brooding peaks shouldering high above, breaking the winds and fencing off man and animals into still nooks and warm shelter. "An elevation of the valleys from 2,000 to 3,000 feet above the sea level; sparkling water abundant; several varieties of grasses and native clover growing luxuriantly, and curing on the stalks for winter pasture; summers which would almost resuscitate the dead, and winters which are warm and pleasant, and which absorb the snow-fall into the atmosphere and never melt it under foot; meadows of heavy grasses through which the mowing machine can run for miles—these are the elements and possibilities of farming throughout Montana."

On the fifteen or twenty million acres of arable land in Montana—which would easily sustain a rural population of several hundred thousand—there are as yet only six or seven thousand farmers. These produce as high as 8,000,000 bushels of grain and vegetables in a single year, which, at a good, fair valuation, are worth $5,000,000. In January, 1878, the prices paid for farm produce at Helena City were as follows: wheat, $2.10 to $2.25 per 100 pounds; oats, $2.25 to $2.35; potatoes, $1.25; flour, $4.75 to $5.50; butter, 40 to 45 cents per pound; eggs, 65 cents per dozen. It is safe to assume that these figures cannot be materially reduced for years to come, because, with increased facilities for railroad transportation about to be afforded from the south, the mining population will rapidly double up; cities now there will enlarge and new ones will be planted in every one of these broad counties—all tending to build up a commonwealth of lavish consumers.

Stock Raising and Dairying are important industries now, and are yet only in their infancy. Many settlers express the opinion that the bunch grass of Montana is worth more to the territory than all her gold and silver mines, rich as they are. This peculiar grass, more nutritious than Kentucky blue grass or timothy, starts up in early spring, reaches maturity in June, and then cures where it stands, retaining all its nutritious qualities, and constituting the finest autumn and winter feed for cattle that nature has anywhere provided. It not only grows in the valleys, but covers the foot-hills and bench lands, and frequently reaches to the mountain tops, thus furnishing unlimited grazing throughout the year on lands not available for other purposes. Hon. R. W. Raymond, United States Commissioner of Mining Statistics, says on this subject: "To be more exact I might say that to pasture a horse on bunch-grass is like *giving him plenty of good hay with regular and liberal feeds of grain.*" Montana's grazing area is placed at 68,000,000 acres, and this vast domain is merely peppered here and there with herds of cattle, sheep and horses. No country on the globe is better adapted for dairying, and none affords a better market. Wool-growing is also a wonderfully lucrative pursuit, the conditions surrounding the industry being much the same as those already described in articles relating to Wyoming. The stockmen of Montana now own about 250,000 head of cattle and 150,000 head of sheep. During the year 1877, 10,000 beef cattle were driven to Ogden and other Union Pacific Railway stations for shipment east, and nearly half a million pounds of wool were also exported. The products of the dairy were valued at $600,000. Montana cattle are nearly all high-grade American stock, and the finest steers ever forwarded by the Union Pacific come from her splendid ranges. It is found, after years of careful experiment, that the average loss of cattle from all causes is only one per cent annually. Good American cattle can be bought in the various settlements of the territory at about the following prices: Yearlings, $12 to $15 per head; two-year-olds, $20 to $25; best cows, or beef steers, $35 to $45; work oxen $150 to $200 per yoke; good work horses command from $100 to $150; ponies, $35 to $60; graded sheep, $4 to $5.

A large proportion of the agricultural and grazing lands yet vacant and unclaimed are as valuable for all uses of the farmer or stockman as those already occupied. As far as we can learn, even the most thickly settled valleys in the territory contain large quantities of unoccupied lands which are fertile, convenient to water, and generally suited to farming. Homestead and pre-emption laws apply to these valley lands the same as elsewhere, and the wide pasturage of the uplands are still available for the simple taking. Fine, improved farms command from $30 to $50 per acre.

Mineral Resources.—Of the mineral wealth of Montana, all the world has heard. Alder Gulch alone—from whose sluice-boxes some $40,000,000 in dust and nuggets have been poured—has given the territory a reputation which crosses the seas. Deposits of quartz and placer gold are found in all the counties—in fact, wherever the mountains are, there are the mines also. Tho mineral belt of Montana is, therefore, one of the most extensive on the continent; extending from the copper fields on the Muscle Shell at the northeast, to Lake Pen d'Oreille at the west end of the territory, 300 miles; and from the southern line, north to

Lincoln Gulch, 200 miles—the mountains of this entire region being seamed with a literal network of mineral veins, and many of the small valleys or gulches intervening furnishing rich placer diggings. Of late years, silver mines have been opened which rival the best of Colorado and Utah, and are now pouring their wealth in the shape of bars, southward on every coach, and are sending large quantities of ore to Omaha, Salt Lake City, and even some to Europe, for reduction. Iron, copper, coal and lead, are equally plentiful. Official, and other reports, make Montana's yield in gold, for the past sixteen years, $150,000,000, or more than that of Colorado, Utah and Idaho combined. The annual gold yield of the territory, since 1864, will average about $8,500,000. There are over 1,000 placer mines now discovered and being worked with profit, and the quartz interest is represented by not less than 10,000 recorded lodes. Some 500 stamps are pounding out the gold from free milling ores, and several smelters are reducing a small proportion of both gold and silver ores which are refractory. The 400 miles—and often more—of wagon freighting, to and from Montana, has been the most discouraging item. No other territory is so isolated. While gold-mining operations could often be carried on without much dependence upon outside auxiliaries, the far more important quartz-mining interest has demanded heavy machinery, costly and bulky crushers and smelters, adjuncts to successful operation, which had to suffer these aggravating delays and enormous expenses incident to the long overland trip—or else the almost equally unsatisfactory Missouri river jaunt, which was of avail only three or four months of any year. To separate these precious metals successfully; to crush tons of stubborn and solid rock beneath the ponderous stamps of the quartz mill for ounces of dust; to melt large masses of ore in the fiery furnace of the smelting works for silver "buttons" or "bricks," and to receive pay for handling the worthless portions, taxes the skill, ingenuity and industry of these determined citizens of Montana. But where mines are so rich that they justify the miner in putting his ores in sacks, hauling it 500 miles to the railroad, and then shipping it to Swansea, Wales, for treatment, they must soon attract railways—those grand agencies for the development of all countries. The "railway era" of Montana will indeed be a happy one; for it will unloose the fetters of hundreds of rich mines and convey untold millions of wealth to the outside world.

Helena, Jefferson, Virginia City, Deer Lodge, Butte City, Bannack and Diamond City are the most prominent mining centers, although hundreds of prosperous camps are anchored beautifully and enduringly to the mountain sides and in the bottoms of the gulches throughout Montana. Many of the most important quartz-mining, milling and smelting enterprises are in the vicinity of Helena. The gold quartz mines of the Silver City district, 20 miles distant, the rich ores from the many silver mines on Ten-mile creek, and the great "Comet" and "Rumley" mines near Jefferson, all pour their treasures eventually through the banks, smelters or forwarding houses of Helena. The reliable placers of Grizzly, Park, Nelson, Scratch Gravel, Confederate, White's and Cave gulches all occupy this great central belt of mineral wealth which is giving Montana so much fame at home as well as abroad.

Value of the Montana Trade.—Receipts from passenger travel over the stage lines of Gilmer, Salisbury & Co.—leading from the terminus of the Utah Northern to the Montana settlements—average $20,000 per month the year round. The mail matter going northward averages 1,000 pounds per day, and the silver bullion taken out over the same line amounts to about *three tons per month.* Freights forwarded to these northern settlements from the Pacific Railway, in 1877, amounted to nearly 20,000,000 pounds. Outward over the same route were shipped 1,500,000 pounds of silver and copper ores, 1,000,000 pounds of copper matte, and 250,000 pounds of lead or base bullion. During the few months of Missouri river navigation, in the same year, the exports and imports by that route were as follows:

EXPORTS.

	VALUE.
Ores and Bullion—1,525 tons, average value per ton, $750	$ 918,750 00
Wool—208,450 pounds	72,960 75
Buffalo Robes—50,512 robes	202,047 00
Antelope, Deer and Elk Skins—68,580 pounds	12,335 40
Bear Skins—61 skins	305 00
Wolf Skins—2,034 skins	7,051 45
Beaver Skins—6,703 pounds	6,703 00
Hides—15,267 hides	45,801 00
Mixed Furs	2,150 00
Sheep Skins—1,482 skins	592 80
Cattle—112 head	2,240 00
Fort Macleod shipments—595 tons	303,600 00
Cypress shipments—350 tons	180,000 00
Total value of river exports	$1,754,436 40

IMPORTS.

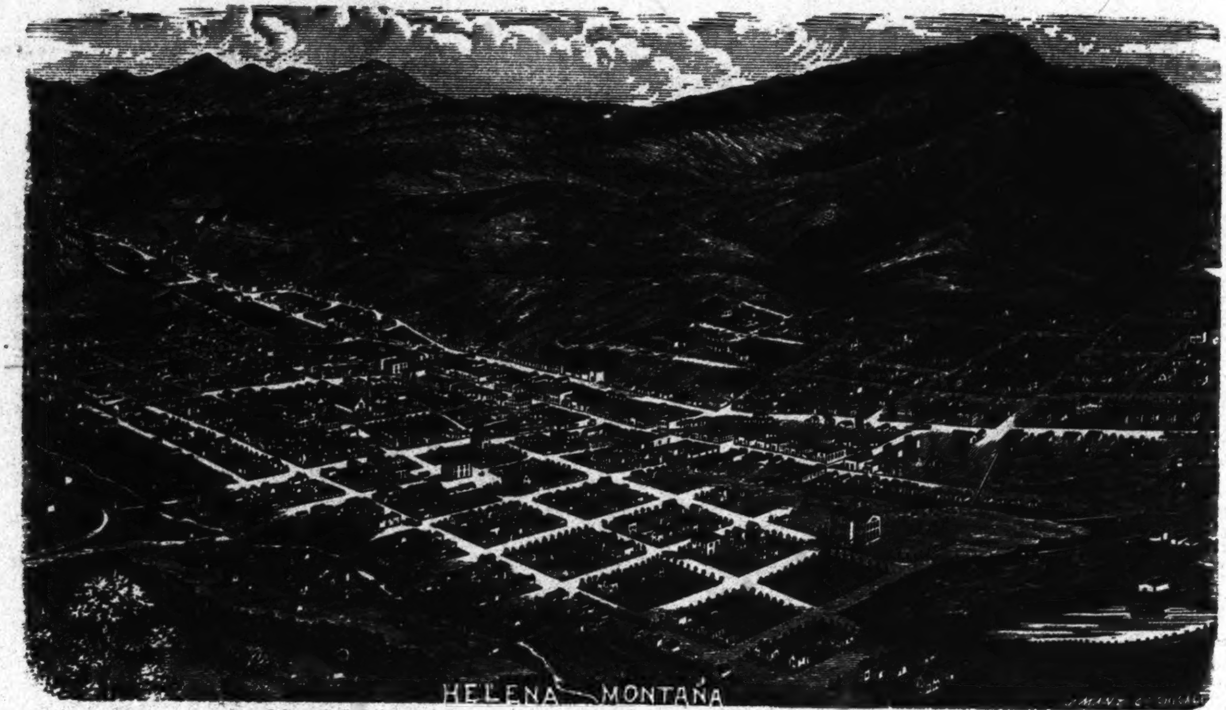
Montana Freight—4,648 tons, average value per ton, $300	$1,384,400 00
Canadian Contract Freight—1,025 tons	310,000 00
Total value of river imports	$1,694,400 00

The increase of this river traffic has been 50 per cent since 1870. Over 1,000 passengers were landed in Montana during the same year by steamer. The entire freighting business of Montana, in 1877, is figured up as follows:

		POUNDS.
Incoming.—	By Missouri and Yellowstone rivers	32,000,000
"	By U. P. & C. P. Railways, via Franklin and Corinne	19,500,000
Total (in pounds) incoming		51,500,000
Outgoing.—	River and wagon shipments	14,000,000
"	Beef cattle, on hoof, live weight	16,000,000
Total (in pounds) outgoing		30,000,000

When we consider how large a proportion of the outgoing freight consists of ores, which must be worth $250 per ton or more to make their treatment profitable, we can, in a measure, realize what a vast amount of business would spring up on the transportation of lower grade ores alone, upon the advent of railway communication. We have it, upon good authority, that a single firm in Helena pays out as much as $150,000 annually, for freights alone; while several others pay annual freight bills of $80,000 each. Some of these firms do a business of half a million dollars annually. It may also be interesting for the average eastern merchant to know that the commercial rating of the business men of Montana is higher than that of any state or territory west of the Missouri river.

The table below shows a comparative statement of the assessed valuation of


HELENA MONTANA
J. MANZ & Co. CHICAGO

Reached via Utah Northern Branch of the Union Pacific Railway.

property of the several counties of Montana for the years 1876-7. The bulk of the mineral property of the territory, it should be remembered, which largely exceeds in value every kind and description of listed property, pays no tax, and finds therefore no representation in the appended figures:

Counties.	1876.	1877.
Lewis and Clarke	$2.583,403 00	$2,787,540 00
Madison	1,655.935 00	1,631,010 00
Deer Lodge	1,815.600 00	1.646,044 00
Gallatin	979,000 00	1,190,060 00
Jefferson	582.004 55	664,901 00
Beaverhead	644,780 00	848.182 00
Meagher	657,598 00	762,081 00
Missoula	567,808 00	586,771 00
Chouteau	453,412 00	545,850 00
Custer		286,435 00
Totals	$9,939,540 55	$11,193,874 00
		9,939,540 55
Net increase		$1,254,333 45

In the few years of Montana's organization as a territory its citizens have paid internal revenue taxes to the amount of nearly $1,000,000; they have produced $150,000,000 worth of the precious metals, have built thousands of miles of superb wagon roads, bridged all their splendid rivers, founded fine educational institutions, established boards of trade, and in fact, have created a wonderfully flourishing commonwealth in the heart of the northwestern wilderness, solely by means of their own inherent strength and upon the grand foundation afforded them by their territory's matchless resources.

Cities, Towns, Scenery, Etc.—Helena, 500 miles north of Ogden, is the recognized commercial center of the territory. It has a population of 4,000, numerous fine public and private buildings, and is surrounded by rich gold and silver mines. Burned to the ground twice by the cruel flame, its determined citizens have each time built it up in better style than before, until now—as a glimpse of our illustration of it will prove—Montanians have just cause to take pride in its beauty and stability. It boasts two daily papers, and the visitor here within a stone's throw of the richest mines, 400 miles from the railway, can read dispatches fresh from the wires, as he would beyond the Mississippi. The mercantile and manufacturing business of Helena employs a cash capital, estimated at $3,500,000.

Virginia City, situated near the southern boundary, is the capital of Montana. It is located along the famous Alder gulch, already alluded to, from which nearly $1,000,000 worth of gold dust are still taken annually. The population is estimated at 3,000, many costly residences here and other noteworthy improvements indicate the settled disposition of the people. Within a radius of 50 miles are numerous fertile and thickly settled valleys, as well as rich mining districts, all combining to give Virginia City an enviable trade and prosperity. The city is the principal starting point of tourists bound for Yellowstone Park.

Deer Lodge City, the county seat of Deer Lodge county, is called the most beautiful town in Montana, because of its picturesque surroundings. Sixteen miles distant is a cluster of thermal springs greatly valued for the curative properties of their waters. A fine hotel, bath houses, etc., have been erected here.

Bozeman is the county seat of Gallatin county, the banner agricultural county of the territory. It enjoys the benefits of such institutions as the telegraph, daily mail, and excellent religious and educational privileges. Besides these there are Missoula, the county seat of Missoula county and the trading center of a vast area of agricultural domain; Bannack, county seat of Beaver Head county, the oldest city of Montana, and located in the centre of rich gold and silver districts; Fort Benton, Choteau county, is at the head of steam navigation on the Missouri river, 145 miles northeast of Helena, and is a very important point for the transfer of freights; Radersburg, the county seat of Jefferson county, is a sprightly agricultural and mining town of 500 inhabitants, and is located near the celebrated "Keating" gold mine, which pays a net profit of some $80,000 annually.

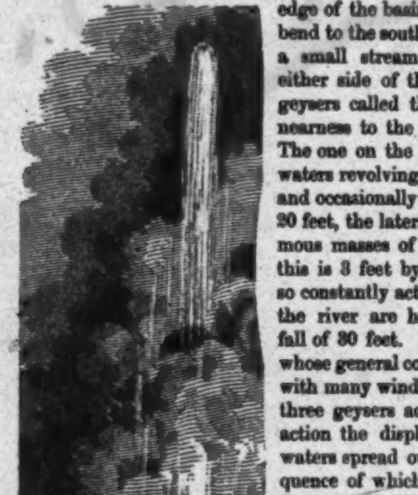
There are many other thriving camps and villages. No territory off the line of railways is better supplied with wagon roads or mail and telegraphic communication. Cities and mining camps are alike equally accessible from the Utah Northern terminus at the south. Stage fares in the territory will average about 20 cents per mile. Expenses of living are fully 25 per cent greater than in regions east of the Missouri, and wages are correspondingly high. Montana is too far distant from the great lines of travel to be flooded either with labor or capital. While the manufacturer or merchant has hitherto disliked to branch out so far from the railroad, the professional man, salesman or laborer has also looked at that 400 mile stage ride as a great bugbear and left the coast clear for the few who really *wanted* to settle in this empire of the northwest.

From items already given in relation to the topography, climate, etc., of Montana the reader can readily see that it must be a land more than usually favored for the health-seeker, the sportsman or the genuine admirer of nature. The mountains are everywhere full of large and small game, the countless brooks, creeks and rivers are alive with trout and the water courses and lakes are covered with water-fowl. The great falls of the Missouri, Flathead Lake, Bald Mountain, Mount Powell, the great caves and the hot mineral springs found in every county are among the many natural attractions. A summer here, breathing the sweet air, inhaling the fragrance of the pines and balsam, viewing the glorious landscapes and feasting on the trophies of the chase ought to make a new being of anyone.

YELLOWSTONE NATIONAL PARK.

Montana settlements are not only greatly favored by nature in the beauty of their own surroundings, but also at present boast the only wagon route to the nation's pleasure grounds. We can no longer doubt that this American wonderland is soon to claim proud pre-eminence over all resorts either here or beyond the seas. We could not more appropriately close this little volume than with a brief outline of its most interesting features. Yellowstone Park embraces an area of 55 by 65 miles, being situated almost wholly in northwestern Wyoming, and contains the most striking of all the mountains, gorges, falls, rivers and lakes in the whole Yellowstone region. The hot springs on Gardiner's river, for example, are along its northern boundary; the Grand Cañon and Falls lie toward its northeastern corner; the wonderful geyser basins along its western boundary, and toward its southeastern corner stretches Yellowstone Lake.

The Geysers.—Entering the Park by the Virginia City wagon road the visitor first encounters the geysers. These rival the most famous of Iceland and deserve detailed description. One explorer, Lieutenant Barlow, tells us that near the edge of the basin, where the river makes a sharp bend to the southeast, is found the initial geyser—a small stream vent—on the right. Soon on either side of the river are seen the two lively geysers called the "Sentinels," because of their nearness to the gate of the great geyser basins. The one on the left is in constant agitation, the waters revolving horizontally with great violence, and occasionally spouting upward to the height of 20 feet, the lateral direction being 50 feet. Enormous masses of steam are ejected. The crater of this is 3 feet by 10. The opposite sentinel is not so constantly active and is smaller. The rapids of the river are here 200 yards in length, with a fall of 80 feet. Following the banks of the river, whose general course is from the southeast, though with many windings, 250 yards from the gate are three geysers acting in concert. When in full action the display from these is very fine. The waters spread out in the shape of a fan, in consequence of which they have been named the Fan Geysers. A plateau opposite the latter, contains fifteen hot springs, of various characteristics; some are of a deep blue color, from sulphate of copper held in solution, and having fanciful caverns distinctly visible below the surface of the water. The openings at the surface are often beautifully edged with delicately wrought fringes of scalloped rock. One variety deposits a red or brown leathery substance, partially adhering to the sides and bottom of the cavern and waving to and fro in the water like plants. The size of these springs varies from 5 to 40 feet in diameter. "One hundred yards farther up the side of the stream is found a double geyser, a stream from one of its orifices playing to the height of 80 or 90 feet, emitting large volumes of steam. From the formation of its crater it was named the Well Geyser. Still above are found some of the most interesting and beautiful geysers of the whole basin. First we came upon two smaller geysers near a large spring of blue water, while a



GIANT GEYSER, YELLOWSTONE PARK.

few yards beyond are seen the walls and arches of the Grotto. This is an exceedingly intricate formation, 8 feet in height and 90 in circumference. It is hollowed into fantastic arches, with pillars and walls of almost indescribable variety. This geyser plays to the height of 60 feet several times during twenty-four hours. Proceeding 150 yards farther, and passing two hot springs, a remarkable group of geysers is discovered. One of these has a huge crater 5 feet in diameter, shaped something like the base of a horn—one side broken down—the highest point being 15 feet above the mound on which it stands. This proved to be a tremendous geyser, which has been called the Giant. It throws a column of water the size of the opening to the measured altitude of 130 feet, and continues the display for an hour and a half. The amount of water discharged was immense, almost equal in quantity to that in the river, the volume of which, during the eruption, was doubled. But one eruption of this geyser was observed. Another large crater close by has several orifices, and, with ten small jets surrounding it, formed probably one connecting system. The hill built up by this group covers an acre of ground and is 30 feet in height."

Harry J. Norton, Esq., of Virginia City, Montana, made the rounds of all the geysers, and describes the leading ones as follows:

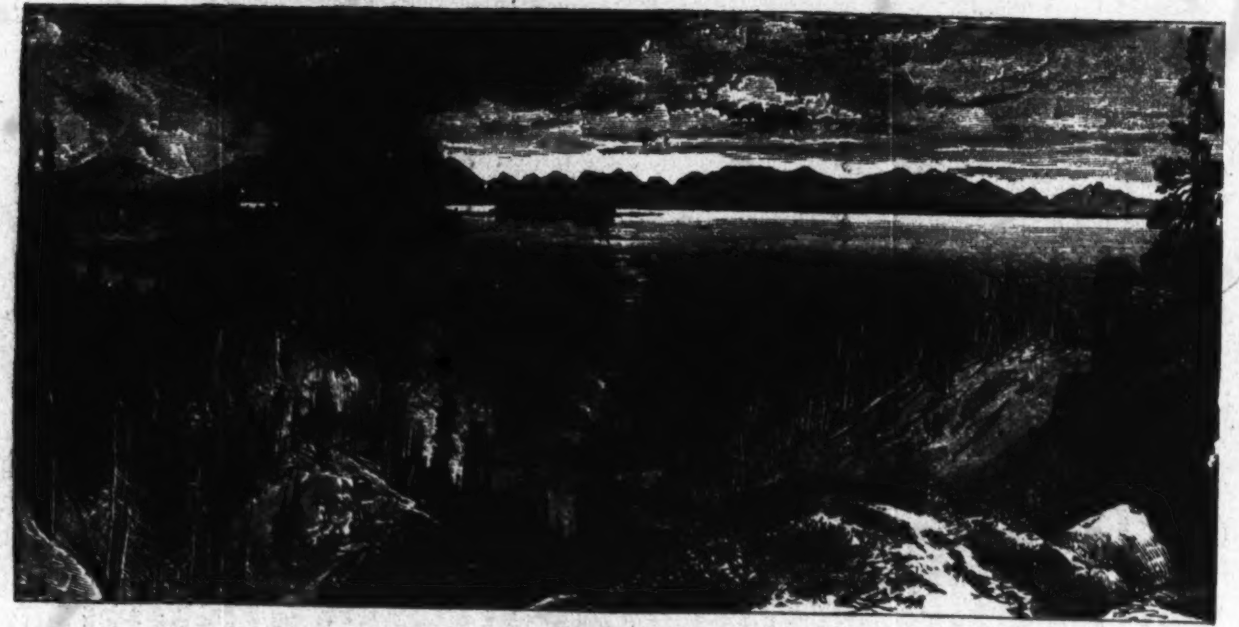
"In our opinion, there is no geyser in the entire region that is so richly deserving of mention as our ancient-looking, steadfast friend, Old Faithful, for its operations are as regular as clock-work, of most frequent occurrence, and of great power. "Standing sentinel-like on the upper outskirts of the valley, at regular intervals of 67 moments, the grim old vidette sounds forth his 'all's well' in a column of water five or six feet in diameter, throwing it skyward to a distance of 150 feet, and holding it up to that height for eight or ten minutes' duration. The stream is nearly vertical, and in descending the water forms a glittering shower of pearl-drops, plashing into a succession of porcelain-lined reservoirs of every conceivable shape and many-colored tints. The mound is not far from 20 feet in height, and gradually slopes down to the south in regular terraces to a neighboring hot spring. One of the artistic reservoirs nearest the crater is half-filled with irregularly-shaped, perfectly-polished white pebbles, which must have been thrown out at the different eruptions. When the eruption ceases, the water recedes, and nothing is heard but the occasional escape of steam, until another exhibition occurs. Old Faithful will ever be the favorite of tourists, as it never fails in regularly giving a display of its powers.

"Crossing the river, and proceeding down its east bank an eighth of a mile, is the Bee-hive. In the middle of the afternoon an eruption took place without a moment's warning. The column of water ejected filled the full size of the crater, and was shot up fully 200 feet. So nearly vertical does the stream ascend that on a calm day nine-tenths of the volume would fall directly back into the aperture. From this cause, probably, there is no mound of any consequence built around it. At the time we witnessed its action, the ascending torrent was interposed between us and a bright, shining sun, and through its cloud of spray there formed a rainbow of magnificent proportions, lending the fountain a crowning splendor and glory that it could not otherwise possess.

"To the right, and down stream a few hundred yards from the Bee-hive, is the Giantess, with a crater 18 by 25 feet, scalloped and carved after the manner of the hot-spring formations already described. We came upon it during one of its lucid intervals, and looking down into the gaping chasm, could just discern the water a great distance below, as in a state of apparent tranquillity. Presently, however, there came up from its gloomy depths a dismal groan, quickly followed by a dense volume of steam and a rumbling sound beneath our feet, as of terrific underground thunder. In a moment more the seething elements below were in wildest commotion. The rolling and clashing of waves, the dread, terrible steam-clouds to and fro under the frail crust, the thunder of the raging waters as, lashed into fury by the pursuing steam, they sought to burst apart their prison wall and escape; all were but too distinctly heard and felt. Spell-bound we stood, and with enraptured awe silently awaited the result of this terrible confusion. Spasm succeeded spasm; the agitated flood boiled up to the surface of the crater, and with a deafening report the immense body of water was hurled into the air over a hundred feet. Like some gigantic fountain impelled by an engine power that could have revolved a world, the boiling jet continued to play for several minutes. Surrounding this majestic liquid dome is a circle of smaller jets issuing from the same crater, but from lesser apertures below, giving the main column the appearance of a fountain within a fountain. Playing hither and thither in the mellow sun-lit mist, miniature rainbows were seen, and the air glistened with the falling water-beads as if a shower of diamonds were being poured from the golden gates of the Eternal City.

"Suddenly, just below us on the opposite bank of the river, a vast column of steam burst forth and ascended several hundred feet. On the *qui vive* for new wonders, we hurried over a slight knoll in that direction and arrived just in time to witness the Fan Geyser getting up steam for an eruption. It requires more inside machinery to operate this geyser than any of the others. In fact, it is a massive natural engine, 25 by 100 feet, with two small valves, two escape pipes, and at the extreme upper end a large smoke-stack—five separate and distinct craters. When we arrived, we could hear a sound as of cord-wood being thrown into a mammoth furnace. This continued several seconds, ceased, and was followed by great quantities of steam from the smoke-stack; then the two valves opened, shooting out swift, hissing jets of steam. The next moment there would be an unearthly roar from the double crater; both would fill, and from each aperture a column of water two feet in diameter shot upward over 80 feet, one ascending nearly vertical and the other at an angle of about 45 degrees, thus forming the 'fan.' The eruption would continue from two to four minutes, then the flow cease for eight or ten seconds, and then the entire movement would be repeated. These repetitions continued for about twenty-five minutes, then ceased altogether. It requires no great flight of fancy to see in this marvelous natural mechanism a vast engine running under the guidance of a ghostly engineer, and being 'stoked' from Pluto's wood-pile by a thousand goblin firemen!"

Yellowstone Lake.—About 20 miles from the principal group of geysers is the brightest jewel of the park—Yellowstone Lake. "Here, at the altitude of 7,427 feet above the sea, you have a body of water 30 miles in length, 15 in breadth, with soundings from one and one-half to fifty fathoms, a body of water sufficient to float the navies of the world! Its shore line or circumference measures over 300 miles. Some idea may be had of its great altitude, which the tourist does not at first realize, by considering the fact that if Mount



YELLOWSTONE LAKE.

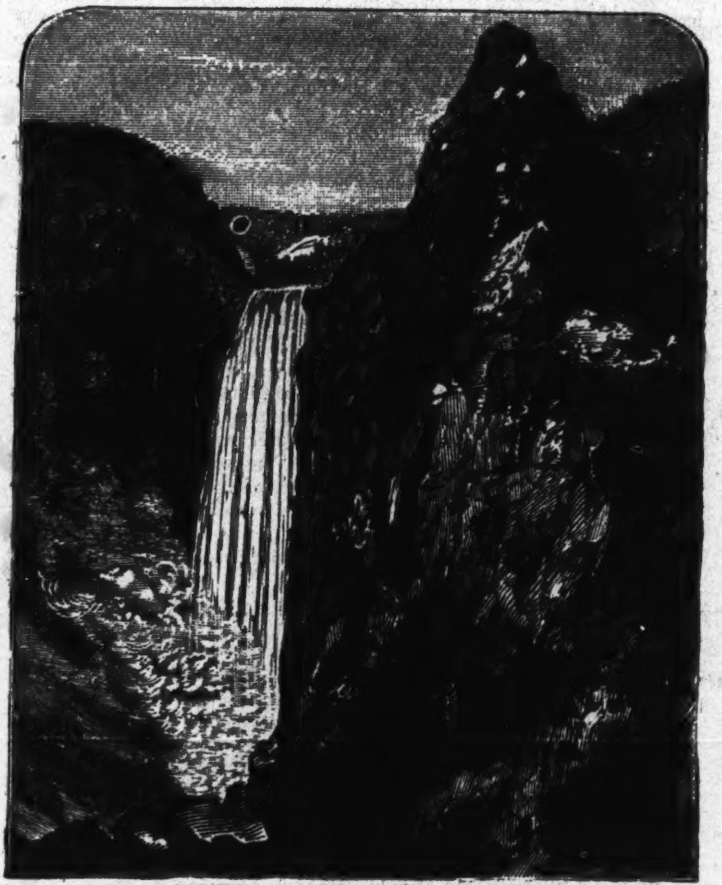
Reached via Union Pacific Railway, Utah Northern Branch.

Washington, the pride of New England, should be placed at the foot of the lake, with its base at sea level, the sparkling waters of this mountain sea *would roll two thousand feet above its summit!*" Hayden says, "Such a vision is worth a lifetime, and only one of such marvelous beauty will ever greet human eyes. Lying upon the very crown of the continent, Yellowstone Lake receives no tributaries of any considerable size, its clear, cold water coming solely from the snows that fall on the lofty mountain ranges that hem it in on every side. In the early part of the day, when the air is still and the bright sunshine falls on its unruffled surface, its bright green color, shading to a delicate ultramarine, commands the admiration of every beholder. Later in the day, when the mountain winds come down from their icy heights, it puts on an aspect more in accordance with the fierce wilderness around it. Its shores are paved with volcanic rocks, sometimes in masses, sometimes broken and worn into pebbles of trachyte, obsidian, chalcedony, cornelians, agates, and bits of agatized wood; and again, ground to obsidian sand sprinkled with crystals of California diamonds."

There is a chain of hot springs almost surrounding the lake, some of them sending their waters with great force up from its bed. Here the visitor can enjoy the novelty of catching trout from the crystal and ice-cold waters of the lake, dropping them into a spring and cooking them without changing his position or taking them from the line. Besides its entrancing shore lines the lake is dotted with numerous islands, which lend rare beauty by their luxuriant vegetation. Fish abound in the lake, game of all kinds inhabit the surrounding forests, and the placid surface of the water and grassy margins render this mountain-locked sheet the earthly paradise for myriads of water-fowl. There are facilities for boating here, and rather primitive summer accommodations for the tourist.

The Grand Cañon and Falls of the Yellowstone.—It is but a pleasant two-hours' ride from the lake to the falls. We again quote from Mr. Norton's eloquent pen: "The head of Yellowstone Cañon is but a short distance above the Upper Falls, and just before reaching them narrows down to a close gorge, compressing the water into so small a passage-way that they drive through with great commotion. The first fall is only a quarter to a half mile above the lower one, and the stream dashes over a perpendicular cliff 140 feet high. Our nearest view of the Upper Falls was from the craggy summit of a projecting point of the mountain which forms a portion of the Cañon wall a half mile below. The view is one which, were there no Lower Falls to admire, would be a sufficient attraction to call forth abundant enthusiasm from the looker-on. But as one stands gazing at them from the rocky height, a mighty and continuous roaring of all the fleeing tide can be heard directly beneath, challenging the individual attention and admiration of the wonder-seeker.

"The river between these two great precipices is dashed into a turbulent, foamy cascade, by its ragged bed and lightning speed, and does not again become smooth until just the instant it takes its dizzying leap of *three hundred and ninety feet* perpendicularly to its narrow bed in the depths of the great Cañon. On either side of the falls, and so far as the eye can reach below, there rises to a height of two thousand feet above the river, a grand, vast wall of infinite masonry, so gorgeously colored and tinted, so bounteously beautified in gilt, purple and carmine, that no oil-painting or chromo, however fine, will



GREAT FALLS OF THE YELLOWSTONE.
Reached via Union Pacific Railway, Utah Northern Branch.

ever do justice to the natural picture! There is no painful glare of one color prominent over another; the great Artist has used each brush deftly, and with his divinely exquisite touches each tint and shade is so perfectly blended that the mighty walls seem as if built by the equal commingling of all the precious metals of the world! The bright sunlight pours over the immense barrier with all its dazzling rays against the imprisoning walls, and reflecting from side to side, is melted into an amber flood of mellow light; while the beautiful surroundings, canopied o'er by the soft blue dome of an autumnal sky, give forth Nature's warmest, kindliest smile to her ardently worshipping children.

"The height of Niagara Falls—164 feet—is 226 feet less than our beautiful falls of the National Park. The sheet at Niagara is 1,100 feet in breadth, while that of the Yellowstone is less than 200. The discordant roar of Niagara is liquid music at Yellowstone; the majesty of the former is poetry at the latter. The waters which dash over Niagara flow through a level and monotonous region, and have a weary, business-like appearance; while the Yellowstone, gliding through a region sublime in scenery and associations everywhere, falls into the grandest cañon of the world. The former are 300 feet above sea level, the latter, 8,000! The great suspension bridge is but 258 feet above the water; a like bridge across this grand cañon would rise *two thousand feet* above the little stream."

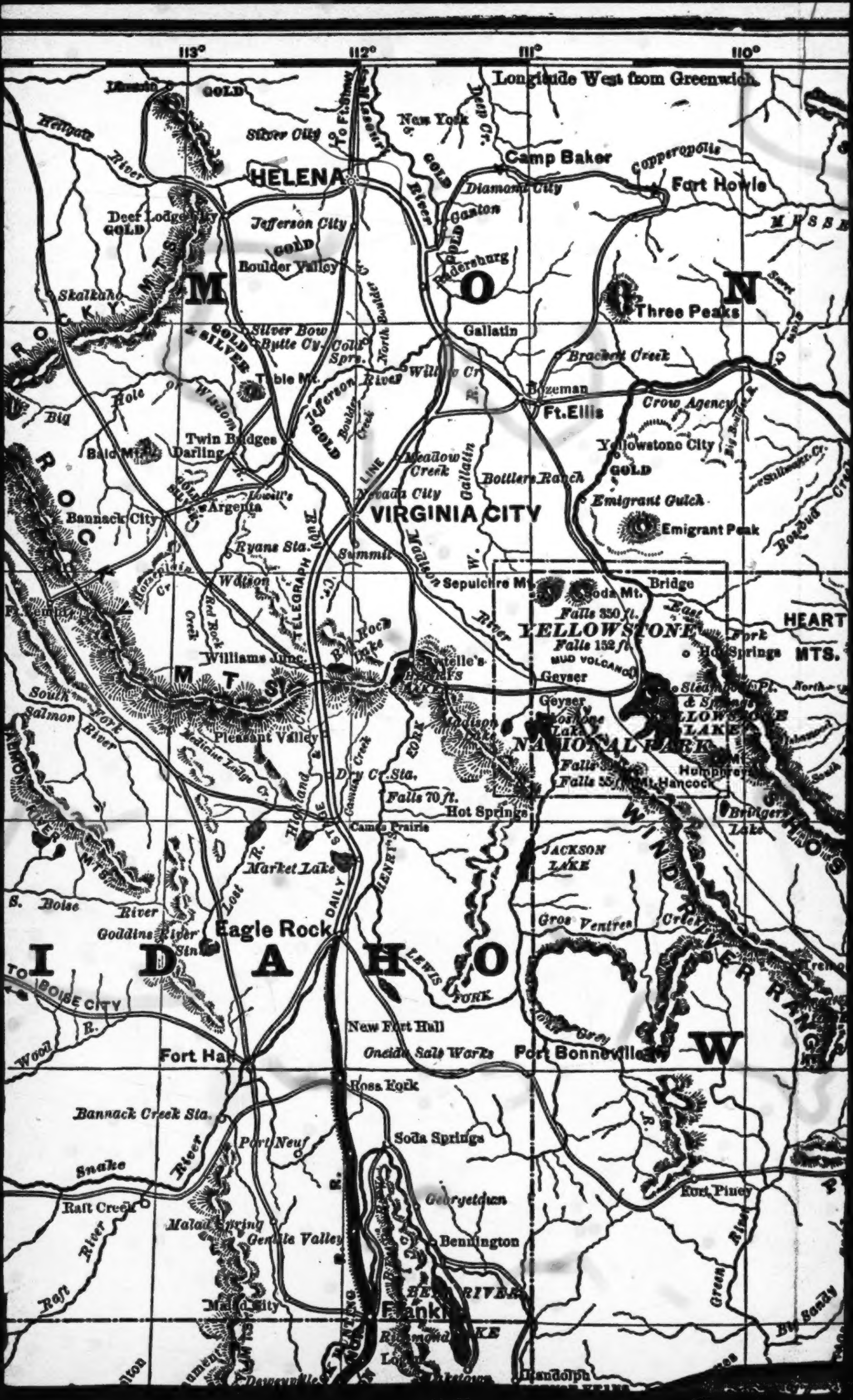
The Hot Springs.—Wonderful hot springs burst out at many different points in the Park, but those in the northern portion are most generally admired. The springs in active operation on Gardiner's River cover an area of about one square mile, and three or four square miles thereabouts are occupied by the remains of springs which have ceased to flow. "Small streams flow down the sides of the Snowy Mountain in channels lined with oxide of iron of the most delicate tints of red; others show exquisite shades of yellow, from a deep, bright sulphur to a dainty cream-color; still others are stained with shades of green—all these colors as brilliant as the brightest aniline dyes. The water, after rising from the spring basin flows down the sides of the declivity, step by step, from one reservoir to another, at each one of them losing a portion of its heat, until it becomes as cool as spring water." The natural basins into which these springs flow are from four to six feet in diameter, and from one to four feet in depth. The principal ones are located upon terraces midway up the sides of the mountain. "The largest living spring is near the outer margin of the main terrace. Its dimensions are 20 feet by 40, and its water so perfectly transparent that one can look down into the beautiful ultramarine depth to the very bottom of the basin. Its sides are ornamented with coral-like forms of a great variety of shades, from a pure white to a bright cream-yellow, while the blue sky reflected in the transparent water gives an azure tint to the whole which surpasses all art."

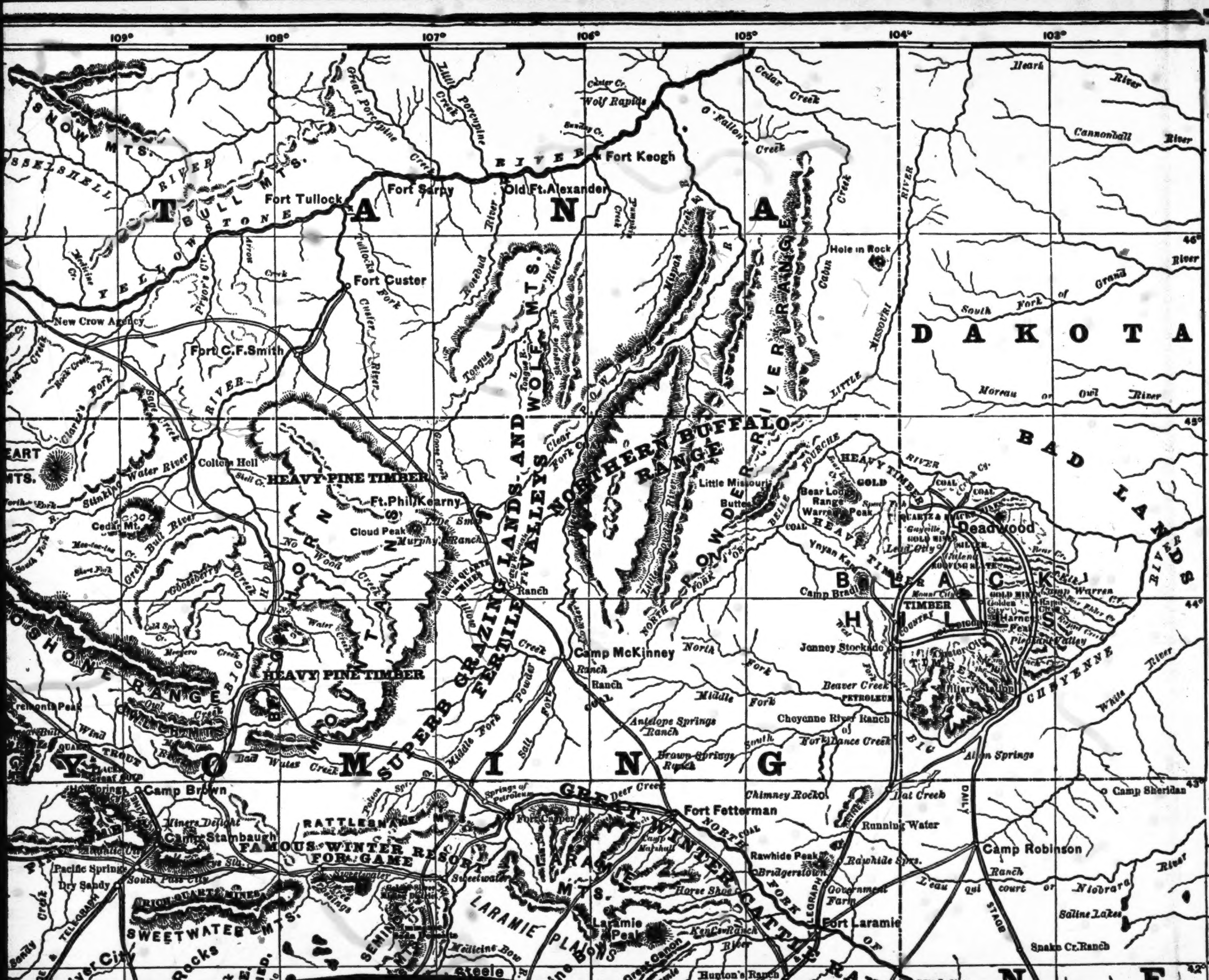
Route and Distances.—As already intimated, Virginia City commands the most direct (and in fact the only) wagon road yet completed to the Park. This route in itself is one of the most romantic pieces of roadway in all the western country, and is lined with good ranches or camping places all the way. At Sawtelle's, Henry's Lake, a week can be profitably spent, for scenery, fish and game are all at hand to invite; and "mine host," Sawtelle, is a royal entertainer. Trails track the Park in every direction. Following are distances by the Virginia City route:

Virginia City to—

Madison River	14
Driftwood, or Big Bend of Madison	28
Henry's Lake	18
Tyghes Pass	3
Gibbon's Fork	23
Upper Geyser Basin	15
Yellowstone Lake	14
	115

Virginia is as good as any of the Montana cities as an outfitting point. Ponies, wagons, guides and all paraphernalia necessary to the thorough enjoyment of a trip to the "American wonderland," can be procured as cheaply here as at other Rocky Mountain cities, adding cost on freight of provisions brought from the railway.


113°
112°
111°
110°
Longitude West from Greenwich.
GOLD
Hellgate River
Silver City
To Ft. Benton
New York
Deep Cr.
HELENA
Camp Baker
Copperopolis
Fort Howie
Diamond City
Gaston
Deer Lodge City
GOLD
Jefferson City
GOLD
Boulder Valley
Radersburg
M
O
N
Skalkaho
ROCKY MTS
Three Peaks
Silver Bow
Butte Cy.
GOLD & SILVER
Cold Sprs.
North Boulder
Gallatin
Bracket Creek
Table Mt.
Jefferson River
Willow Cr.
Bozeman
Ft. Ellis
Crow Agency
Big Hole or Wisdom
Twin Bridges
Bald Mt.
Darling
Yellowstone City
Meadow Creek
Boteler's Ranch
GOLD
Emigrant Gulch
Emigrant Peak
Gallatin
Nevada City
VIRGINIA CITY
Bannack City
Argenta
Lowell's
Ryans Sta.
TELEGRAPH LINE
Summit
Madison
Sepulchre Mt.
Soda Mt.
Bridge
Watson
Red Rock Creek
Falls 350 ft.
YELLOWSTONE
Falls 152 ft.
MUD VOLCANO
East Fork
HEART MTS.
Hot Springs
Williams Junc.
Red Rock Lake
Sawtelle's
Henry's Lake
Geyser
Geyser
ROCKY MTS
South Fork Salmon River
Madison Lake
Shoshone Lake
YELLOWSTONE LAKE
NATIONAL PARK
Pleasant Valley
Medicine Lodge Cr.
Dry Cr. Sta.
Falls 70 ft.
Falls
Falls 55 ft.
Mt. Hancock
Humphreys
Hot Springs
Bridgers Lake
Camas Prairie
Camas Creek
DAILY STAGE
Market Lake
Lost R.
JACKSON LAKE
WIND RIVER RANGE
HENRY'S FORK
S. Boise River
Gros Ventres Creek
Goddins River Sink
Eagle Rock
I
D
A
H
O
LEWIS FORK
TO BOISE CITY
Wood R.
New Fort Hall
Fort Hall
Oneida Salt Works
Port Bonneville
W
Ross Fork
Bannack Creek Sta.
Port Neuf
Soda Springs
Snake River
Raft Creek
Georgetown
Fort Piney
Malad Spring
Gentile Valley
Bennington
Raft River
Green River
BEAR RIVER
Malad City
Franklin
Big Sandy
Richmond
LAKE
Logan
Randolph
Deweyville


109°
108°
107°
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103°
46°
45°
44°
43°
42°
SNOW MTS.
MUSSELSHELL RIVER
BULL MTS.
T A N A
YELLOWSTONE RIVER
Fort Tullock
Fort Sarpy
Old Ft. Alexander
Fort Keogh
Wolf Rapids
Custer Cr.
Sunday Cr.
Great Porcupine Creek
Little Porcupine Creek
Cedar Creek
O'Fallon's Creek
Heart River
Cannonball River
Fort Custer
New Crow Agency
Fort C.F. Smith
Pryor's Cr.
Tullock's Fork
Custer Fork
Rosebud River
Tongue River
Pumpkin Creek
Mizpah Creek
Cabin Creek
Hole in Rock
WOLF MTS.
POWDER RIVER RANGE
LITTLE MISSOURI RIVER
South Fork of Grand River
DAKOTA
Moreau or Owl River
BAD LANDS
Clark's Fork
Rock Creek
Big Horn River
Stinking Water River
Colters Hell
HEART MTS.
Cedar Mt.
Grey Bull River
Gooseberry Creek
No Wood Creek
Stinking Water River
HEAVY PINE TIMBER
Ft. Phil Kearny
Cloud Peak
Murphy's Ranch
Little Piney
BIG HORN MOUNTAINS
SUPERB GRAZING LANDS AND FERTILE VALLEYS
NORTHERN BUFFALO RANGE
POWDER RIVER
Clear Fork
Little Missouri Buttes
BELLE FOURCHE RIVER
HEAVY TIMBER
GOLD
Bear Lodge Range
Warren's Peak
Deadwood
Crook City
Lead City
Gayville
GOLD MINES
SILVER
Ynyan Kara
BLACK HILLS
Camp Bradley
TIMBER
Camp Warren
Harney's Peak
Pleasant Valley
Custer City
Military Station
Jenney Stockade
Beaver Creek
PETROLEUM
Cheyenne River Ranch
Lance Creek
CHEYENNE RIVER
White River
Camp McKinney
North Fork
Middle Fork
South Fork
Ranch
Antelope Springs Ranch
Brown Springs Ranch
Powder River
Salt Creek
Crazy Woman's Fork
SHOSHONE RANGE
Fremont's Peak
OWL CREEK MTS.
Wind River
Bad Water Creek
W Y O M I N G
Camp Brown
Hot Springs
Miners Delight
Camp Stambaugh
Pacific Springs
Dry Sandy
South Pass City
RICH QUARTZ MINES
SWEETWATER MTS.
Sweetwater
Springs of Petroleum
Fort Caspar
RATTLESNAKE MTS.
FAMOUS WINTER RESORT FOR GAME
GREAT WINTER CATTLE RANGE
Deer Creek
Fort Fetterman
NORTH PLATTE
LARAMIE MTS.
Camp Marshall
Horse Shoe
LARAMIE PLAINS
Laramie Peak
Medicine Bow
SEMINOE MTS.
Green River City
Rock Springs
Steele
Chimney Rock
Hat Creek
Running Water
Rawhide Peak
Rawhide Sprs.
Bridgerstown
Government Farm
Fort Laramie
Camp Robinson
Ranch
L'eau qui court or Niobrara River
Saline Lakes
Snake Cr. Ranch
Camp Sheridan
Allen Springs
Chugwater
Hunton's Ranch
Laramie
Mitchell
TELEGRAPH
STAGE
DAILY STAGE
COAL
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THE "NATION'S HIGHWAY" AND ITS BRANCHES.

From Ocean to Ocean in Palace Cars!

THROUGH THE GARDEN SPOT OF THE CONTINENT, PAST THE GREAT GOLD AND SILVER REGIONS, AND IN VIEW OF THE FINEST SCENERY IN THE WORLD.

The Union Pacific R'y.

The only Through Line across the Plains and Rocky Mountains to the Bonanza Mines of Nevada, California's Golden Gate, The Yosemite, Points of Note Generally on the Pacific Coast, and

THE ONLY PERFECT ROUTE FOR TRAVEL ROUND THE WORLD!

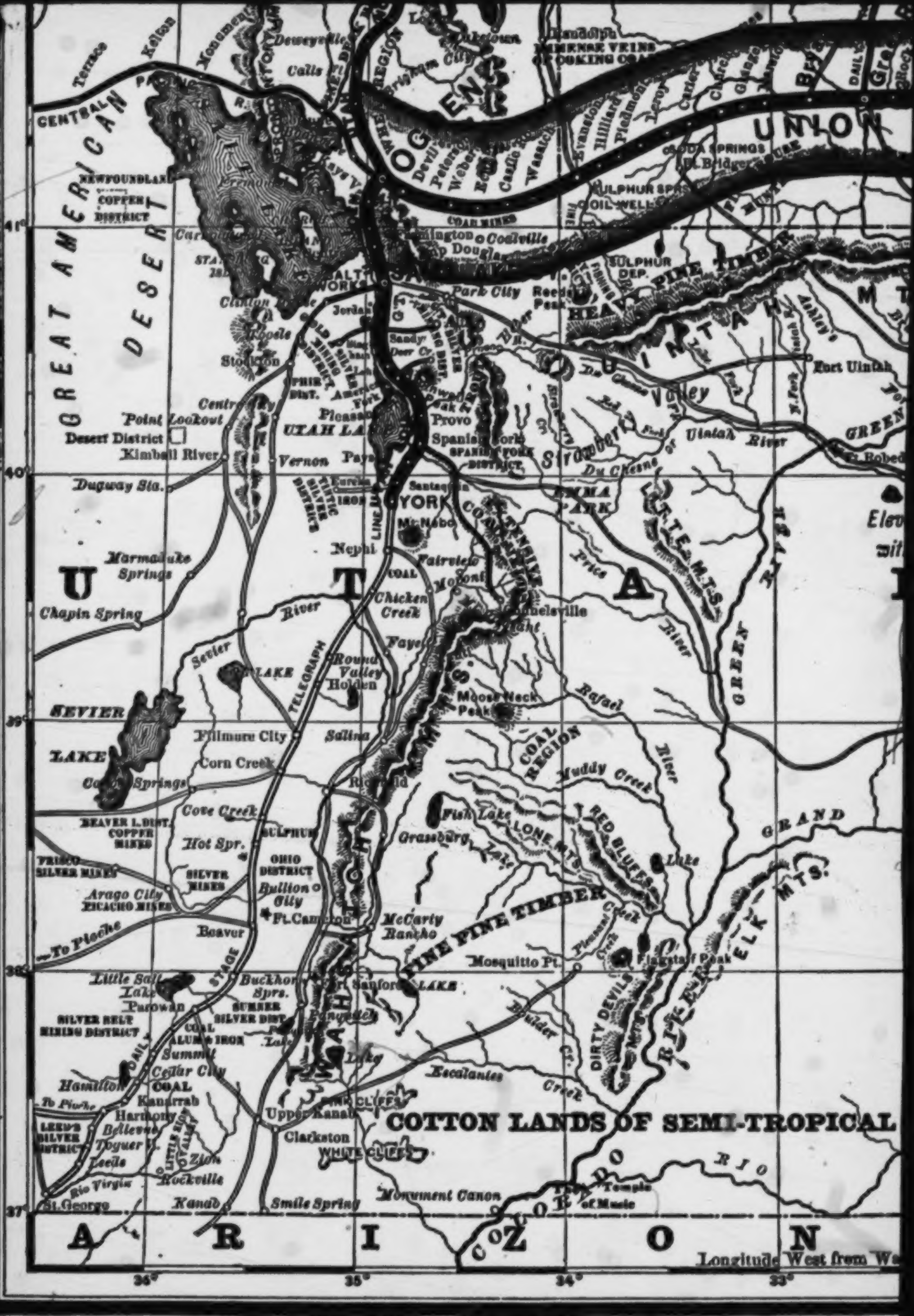
Homes in the Platte Valley.—Home-seekers will never have such an opportunity as now to obtain a foot-hold in this Garden Spot of the West. The pioneering has been done; thousands of happy homes are clustered along the fertile belt, known the world over as the "Great Platte Valley." Society is already good, and church and school privileges are often equal to those of much older States. Deep, rich soil, free from noxious weeds, stones or other obstructions, pure running water, mild winters and first-class markets for all produce are a few of the many attractions in this favored region. Lands in many of the most prosperous and desirable locations along the Platte and its tributaries are yet within reach of all, being open to pre-emption and homestead, or for sale at low rates, on long time, by the UNION PACIFIC COMPANY. Choose a home *now* in the fertile, healthful and prosperous Platte Valley.

The Bonanza Mines Of Colorado, the Black Hills, Utah and Montana are all directly tributary to the Union Pacific Railway and its branches. Three-fourths of the gold and silver yield of America pours over these iron lines, while iron, coal and other metals in quantities sufficient to supply the Union are found along them. In many of these districts the mineral veins have not been half discovered, and the chances for the prospector to easily acquire riches or for the capitalist to invest in good paying mining and milling enterprises, were never better than at present.

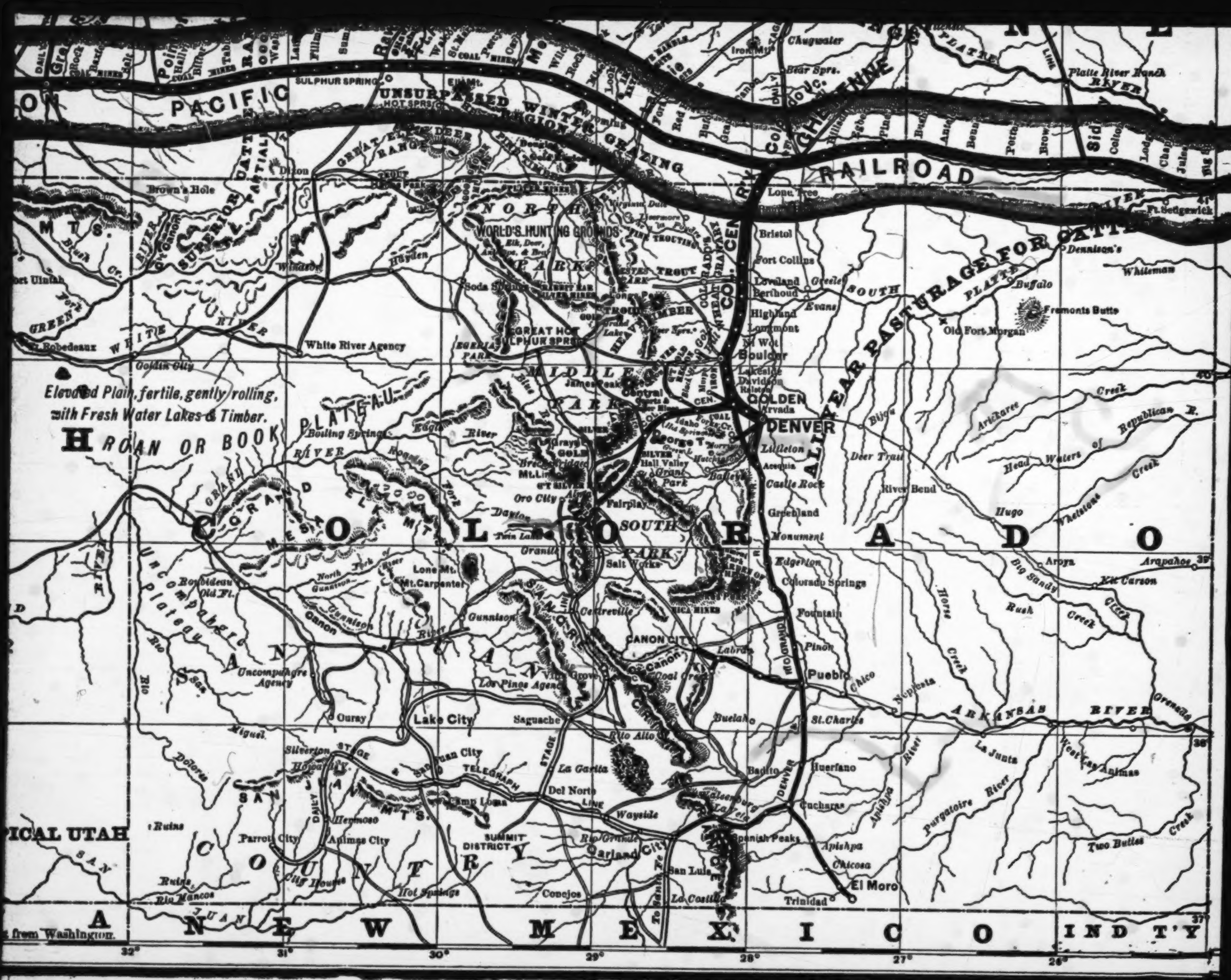
Stock Raising and Dairying.— The great grazing belt of the continent stretches along both sides of the Union Pacific Railway for two-thirds of its length. The tens of thousands of cattle produced here annually and shipped to eastern markets, subsist and fatten entirely upon the nutritious grasses, and without a vestige of shelter. The large herds of cattle are therefore produced at the simple cost of herding and branding and the profits are almost incalculable. Free ranges are unlimited, improvements cost but little, the risks are slight and the market is constantly growing better. A nucleus of a hundred cattle, faithfully attended for five—or six years, will make the owner perfectly independent in the possession of this world's goods, and now is the time, above all others, to commence.

Health and Pleasure, Hunting and Fishing Resorts.—Running to altitudes where the air is itself a tonic, and disease next to impossible, to the finest medicinal springs in the Rocky Mountain region, through vistas of mountain scenery unsurpassed in the world, through America's best hunting grounds, where antelope, deer, elk, buffalo, mountain sheep, bear and a great variety of small game can be killed within sight of the track, and along rushing torrents, crowded with mountain trout, the Union Pacific Railroad is the popular and only perfect route for the health-seeker, the tourist in quest of nature's attractions and the disciple of gun and rod. Boulder and Clear Creek Canyons, and the most famous hot and cold mineral springs of Colorado, Great Salt Lake, American Fork Canyon and the caves of Utah, the Soda Springs and Shoshone Falls of Idaho, the Geysers, Canyons and Falls of Yellowstone National Park and thousands of other attractions unrivaled in the old world are directly accessible only by this line.

Elkhorn
O'Neill City
Plainview
Ponca
SIOUX CITY
Covington
SIOUX
Ida
Park Hill
Sloan
CY.
Middle
North
Fork
Cedar
Beaver
Ford
River
Pierce
La Porte
Omaha Agency
Mapleton
Oakdale
Warren
Norfolk
Onawa
I
42°
B R A S K A
Loup
Fork
Clyde
Stanton
Wiener
Decatur
NORTH WEST'N
Denison
Willow Spring
Creek
Oxford
Gates
Clarion
West Point



GREAT AMERICAN DESERT
CENTRAL PACIFIC
UNION
U T A
A R I Z O N
COTTON LANDS OF SEMI-TROPICAL
Terrace
Kelton
Monument
Deweyville
Calls Ft.
Logan
Smithfield
Brigham City
Randolph
IMMENSE VEINS OF COKING COAL
OGDEN
Devil's Gate
Peterson
Weber
Echo
Castle Rock
Wasatch
Evanston
Hilliard
Piedmont
Leroy
Carter
Church Buttes
Granger
Bryan
SODA SPRINGS
Ft. Bridger
SULPHUR SPRS.
OIL WELLS
NEWFOUNDLAND
COPPER DISTRICT
COAL MINES
Coalville
Camp Douglas
SALT WORKS
Clinton
Tooele
Stockton
Jordan
Sandy
Deer Cr.
Park City
Reeds Peak
SULPHUR DEP.
HEAVY PINE TIMBER
UINTAH MTS.
Ashley's
Uintah R.
N. Fork
Fort Uintah
Du Chesne
Valley
OPHIR DIST.
American Fork
Centreville
Point Lookout
Desert District
Kimball River
Pleasant Grove
UTAH LAKE
Provo
Spanish Fork
SPANISH FORK DISTRICT
Strawberry
Uintah River
GREEN
Ft. Robedo
Vernon
Payson
Eureka
Santaquin
Duguay Sta.
YORK
Mt. Nebo
EMMA PARK
Nephi
Fairview
COAL
Moroni
Marmaduke Springs
Price
UTE MTS.
Chicken Creek
Chapin Spring
Sevier River
Round Valley
Holden
Fayette
Ephraim
SEVIER LAKE
Manti
TELEGRAPH
Moose Neck Peak
Rafael River
GREEN RIVER
Fillmore City
Salina
Corn Creek
Cove Springs
Richfield
COAL REGION
Muddy Creek
Cove Creek
BEAVER L. DIST. COPPER MINES
SULPHUR
Hot Spr.
OHIO DISTRICT
Fish Lake
LONE MTS.
RED BLUFFS
Lake
GRAND
PRISCO SILVER MINES
SILVER MINES
Bullion City
Grassburg
Arago City
PICACHO MINES
Ft. Cameron
McCarty Rancho
PINE PINE TIMBER
To Pioche
Beaver
STAGE
Mosquito Pt.
Flagstaff Peak
ELK MTS.
Little Salt Lake
Buckhorn Sprs.
Sanford
Parowan
SUMMER SILVER DIST.
SILVER BELT MINING DISTRICT
COAL ALUM & IRON
Summit
Panguitch
Cedar City
Boulder Cr.
DIRTY DEVILS
Hamilton
COAL
Escalante Creek
Kanarrah
To Pioche
PINK CLIFFS
LEED'S SILVER DISTRICT
Harmony
Bellevue
Toquer
Upper Kanab
Clarkston
Zion
Leeds
WHITE CLIFFS
Rockville
Rio Virgin
St. George
Kanab
Smile Spring
Monument Canon
The Temple of Music
RIO COLORADO
41°
40°
39°
38°
37°
36°
35°
34°
33°
Longitude West from Wa



UNION PACIFIC RAILROAD
UNSURPASSED WINTER GRAZING REGION
SUPERIOR CATTLE
ALL YEAR PASTURAGE FOR CATTLE
C O L O R A D O
A N E W M E X I C O
IND T'Y
PICAL UTAH
COUNTRY
SAN JUAN MTS.
Elevated Plain, fertile, gently rolling, with Fresh Water Lakes & Timber.
ROAN OR BOOK PLATEAU
GRAND MESA
ELK MTS.
Uncompahgre Plateau
NORTH PARK
WORLD'S HUNTING GROUNDS
MIDDLE PARK
SOUTH PARK
GREAT HOT SULPHUR SPRS.
COLORADO CENTRAL
DENVER
GOLDEN
Cheyenne
Chugwater
Bear Sprs.
Sulphur Spring
Hot Sprs.
Platte River Ranch
Sidney
Lone Tree
Ft. Sedgewick
Denison's
Whiteman
Bristol
Fort Collins
Loveland
Berthoud
Greeley
Evans
Highland
Longmont
Ni Wot
Boulder
Lakeside
Davidson
Ralston
Arvada
Littleton
Acequia
Castle Rock
Greenland
Monument
Edgerton
Colorado Springs
Fountain
Pinon
Pueblo
St. Charles
Buelah
Badito
Huerfano
Cucharas
Walsenburg
La Veta
Spanish Peaks
Apishpa
Chicosa
El Moro
Trinidad
San Luis
La Costilla
Garland City
Conejos
Wayside
Del Norte
La Garita
Rito Alto
Saguache
Villa Grove
Los Pinos Agency
Lake City
Silverton
Howardsville
San Juan City
Camp Lowe
Hermoso
Animas City
Parrott City
Ouray
Uncompahgre Agency
Summit District
Ruins
Rio Mancos
Hot Springs
Canon City
Coal Creek
Labran
Centreville
Salt Works
Mica Mines
Fairplay
Granite
Twin Lakes
Dayton
Oro City
Mt. Lincoln
Breckenridge
Hall Valley
Grant
Bailey's
Georgetown
Idaho
Central
James Peak
Black Hawk
Soda Springs
Egeria Park
Windsor
Hayden
Dixon
Brown's Hole
Fort Uintah
Ft. Robedeaux
White River Agency
Goldin City
Boiling Springs
Roubideau Old Ft.
Gunnison
Lone Mt.
Mt. Carpenter
Deer Trail
River Bend
Hugo
Aroya
Arapahoe
Kit Carson
Las Animas
West Las Animas
La Junta
Nepesta
Granada
Two Buttes
Buffalo
Fremonts Butte
Old Fort Morgan
DENVER & RIO GRANDE
TELEGRAPH
STAGE
TROUT
FINE TROUTING
TIMBER
GOLD
SILVER
COAL
WHEAT
ARKANSAS RIVER
SOUTH PLATTE RIVER
WHITE RIVER
GRAND RIVER
GREEN RIVER
GUNNISON RIVER
Eagle River
Roaring Fork
Rio Grande
Purgatoire River
Big Sandy
Rush Creek
Horse Creek
Bijou
Arickaree
Head Waters of Republican R.
Whetstone Creek
Dolores
Rio San Miguel
Ruins
from Washington.
32°
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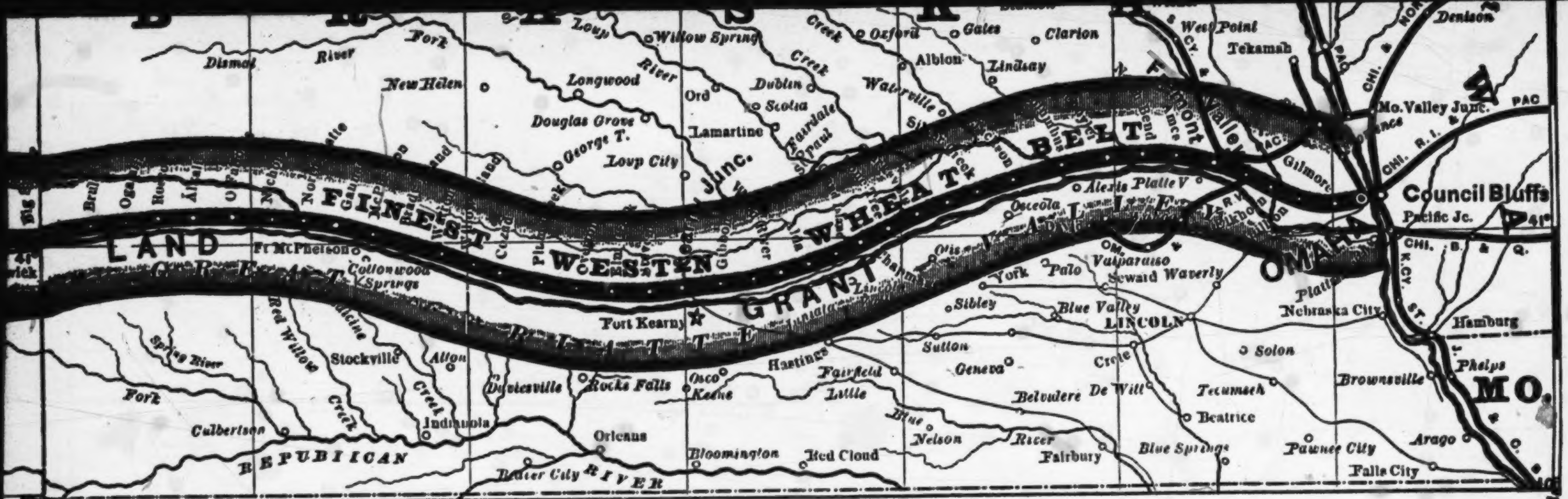
LAND
FINEST
WESTERN
WHEAT
BELT
GRANT
OMAHA
Council Bluffs
Pacific Jc.
LINCOLN
Fort Kearny
Hastings
Nebraska City
Beatrice
Tecumseh
Brownsville
Falls City
Red Cloud
Bloomington
Orleans
REPUBLICAN
RIVER
Loup City
Ord
Albion
Clarion
West Point
Tekamah
Mo. Valley Junc.
Denison
Hamburg
MO.

NEW MAP OF THE

Union Pacific Railway and Branches.

Special Attention is Called to the New and Desirable Routes afforded by the Trans-Continental Line, its Branches and Connecting Stage Lines

TO THE COLORADO CITIES AND RESORTS.

Fort Collins, Estes Park, Longmont, Boulder, Gold Hill, Caribou, Sunshine, Golden, Denver, Central, Black Hawk, Georgetown,
and all points in Southern Colorado and San Juan.

TO THE BLACK HILLS AND BIG HORN.

Camp Robinson, Fort Laramie, Custer City, Rapid City, Deadwood, Lead City, Gayville, Central City, Crook City, Bear Buttes,
and other Mining Camps in the New Eldorado.

TO UTAH, NEVADA, AND ARIZONA.

Salt Lake City, Sandy, Alta, Park City, Bingham, The Tintic Mines, American Fork Canyon, Utah Lake, Beaver, St. George, Pioche, Stockton.

TO MONTANA AND IDAHO.

Brigham City, Logan, Franklin, Soda Springs, Fort Hall, Eagle Rock, Virginia City, Helena, Deer Lodge, Bannack, Jefferson, Yellowstone Park,
and all other Cities, Mining Camps, and Pleasure Resorts in Nebraska, Wyoming, Colorado, Utah, and Montana.

S. H. H. CLARK, General Superintendent. **THOS. L. KIMBALL, General Passenger and Ticket Agent.**